The Illinois Medical Journal.

The Official Organ of The Illinois State Medical Society.

Vol. VI. No. 1. 25c per copy | Springfield, Ill., June, 1904. | Subscription $3.00 a Year.

PRESIDENT'S ADDRESS.*

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The Relation of Our Societies to Political Boards.

BY CARL E. BLACK, M. D., JACKSONVILLE.

Mr. Chairman, Members of the Illinois State Medical Society, Ladies and Gentlemen:

The custom and rules of this honorable and beloved organization require that its President should present an address, otherwise, I would not appear before you in this role this evening.

I have read the addresses of most of my predecessors and realize how ably and fully the ground has been covered. Eighteen years ago, Dr. Byrd, of Quincy, then President of this Society, devoted his address to a suggestion of methods by which the interest and the attendance of this Association could be improved. This address occupied less than ten minutes in its reading, yet in the light of recent progress its scope is truly remarkable. He made five points, viz:—1st. Organize county societies. 2d. Have delegates from the county society to the State Society. 3d. Constitution of county societies should be similar. 4th. The State Society should have ordinary members for the discussion of papers and representative or delegate members who take the legislative and executive work out of the main meetings. 5th. Establish a monthly or weekly Journal, instead of the annual volume of transactions. Thus we see that at least eighteen years ago all that we have been striving for in organization was stated in a nutshell, and advocated in a presidential address on the floor of this society.

The thoughts which I now present to you are taken from personal experiences of the past three years. We are fully in the whirl of re-organization, in the Nation, as well as in the State and in the county. Five years ago less than one-fourth of the physicians in this country were in any medical society, and in Illinois less than one-twentieth of our physicians were in this association. Many very good men do not seem to understand why we organize, or at least do not perceive any pressing need for organization. They do not seem to realize that under present conditions organization is evolution and that disorganization is dissolution.

They fail to realize that no physician, no local society, no state society, no board of health, no board of examiners, not even a national association can live best for itself alone. The very nature of our profession and of our civilization demands union, demands organization. President Alexander T. Darrah, of your own beautiful city of Bloomington, summarized this matter in his annual address at Peoria in 1883. He said he had visited many medical societies, from Cairo to Freeport, and had found the profession so ununited, unharmonious, full of rivalry, jealousy and bickerings, which prevented united work, that we could not command respect. If we do not respect ourselves and our profession, when we go before the public we find how little we are respected.

The increasing demands of our professional progress is making it necessary that we extricate ourselves from the lowly estate and neglect, in which our profession has been held by political powers and governments, and establish ourselves upon an entirely new basis.

Re-organization has been made necessary by the rapid strides of professional improvement. The evolution of scientific medicine is bringing about an entirely new conception of the true function of the physician. One of the elements of this evolution is specializa-

*Read at the 54th Annual Meeting, May 17, 1904.

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tion. As our science has developed our professional work is more and more divided into specialties, which, of necessity, must be coordinated by some central organization in order that the profession may be maintained in a single whole. Centralization or organization is always the complement of specialization.

Dis-organization means a maxium amount of friction and disturbance; while by organizing we bring the various professional factors together into such an organic whole that they work with the least possible friction and loss of power. Dis-organized bodies never have power and influence while the reverse is always true of those which are organized. This is a basic principle, whether seen in the business world, in political powers, in the government, in the church, or in scientific and professional life.

"The greatest good to the greatest number" should be our motto, and universal professional improvement should be the avenue through which it is to be attained. We should be especially interested in all ways and means to secure better qualified physicians. This in a broad sense is the object of organization.

Anything which benefits the profession as a whole will benefit the individual members of the profession, and will be carried by them to the sick and suffering. The relief of pain and suffering; the prevention and cure of disease, and the prolonging of human life are more largely the inspiration of our thought and work than can be true of any other class of citizens.

We should not overlook or decry the business side of our professional life, but at the same time we should remember that our calling has a humanitarian and philanthropic side which is its very essence, and without which no man of heart and soul would have the courage to engage in it.

The evolution of our science and art is a glorious history, full of personal sacrifice and noble achievements for humanity and for science, of which we should not be ashamed or afraid to tell the people. Scientific facts can always be fully and freely told. Only empiricism requires secrecy and mystery. When we take the people more into our confidence we will be better understood and our motives not so frequently misjudged.

Three things have always impeded the progress of our undertakings before the public or its representatives. The first, and most important, is lack of harmony within our profession which is synonymous with poor organization; second, ill advised attempts at framing a definition of the practice of medicine; and third, and almost as important as the first, we have allowed our affairs to fall too much in the hands of those who have no interest in us excepting to use us.

It is evident that if we are to do effective work we must act in harmony. We must each one be willing to follow and co-operate with the will of the majority, as expressed in our formal debates and resolutions. We will secure desirable laws just as far and as fast as we secure the confidence of the public and harmony of action is a primary element in securing that confidence. We should each one seek to impress upon the people, and through them, upon our law makers and our courts, the fact that the practice of medicine includes all which pertains to the cause, diagnosis, prevention or treatment of any human ailment. Fortunately Illinois has secured a very broad interpretation of our definition of the practice of medicine by the supreme court. It is absolutely essential to the success of our undertakings that we secure for ourselves some part in the control of affairs, municipal, county, state and national. How are we to do this? There are several things necessary. In fact, the three elements mentioned must form the basis of our progress. Once having some voice in our own departments we will have something to offer as well as something to ask for. The regulation of the practice of medicine and the department of health naturally belong to our profession. Our profession has made them all they are—who else has an equal right or interest in them? When we think about it seriously, it is ridiculous that the guiding voice should be other than in the medical profession, and in no other place is it so safe. We

will not accomplish the ends for which we have so often striven, until we take a more aggresive part in these matters and assume the responsibility which naturally belongs to us, directing the administration them for the benefit of the people, whom we daily serve.

We should realize that the issuing of a license to practice medicine is not merely the answering of set questions, put by a few examiners, and the paying of a fee of Twenty-five Dollars ($25.00), but the issuing of such a license comprises all there is in education, both preliminary and medical, and more important still, it determines the character and fitness of the future members of our profession. Who should be the ones to pass upon this question? There is only one body, which by virtue of its standing and qualifications, deserves the privilege and should have the right to pass upon these important questions. We bear the responsibility while having only an indirect voice in license and registration. When we fully realize the scope of this question, it is absurd that anyone outside of our medical organizations should presume to have a voice in passing upon the qualifications of our colleges, and it is easy to see that we will have a heterogenous professional mixture until this whole question is turned over to our organizations where it belongs.

We, as medical men, are now at work forming a great organization which is to be the machine with which we hope to accomplish important results for the people, as well as for ourselves.

Just now there is before the British Medical Association a proposition to defray the election expenses of medical members of parliment in order that the medical profession may be justly represented in that body.

A mistake which, in the past, has been too frequently made is to disparage the doctor who has political aspirations. Instead of encouraging such men, and at the same time directing their actions, we have repelled them. We should seek to bind them to us. It is a mistake to believe that because a physician is interested in politics, he is necessarily a bad man. In fact he may be a very good man and will certainly be a very useful man to the profession if we encourage him, sympathize with him and bind him to our cause.

Little can be accomplished without organization. The lack of it has been our greatest weakness. This is peculiarly applicable to securing medical legislation. Such measures should be the offspring of the medical profession. The public and members of the legislature do not comprehend their importance. Such measures are always in advance of any expressed public demand and naturally meet opposition within, as well as outside the profession.

To illustrate how this works in a practical way, your attention is called to the effort which your last legislative committee made to secure a law establishing a Board of Examiners in this State. This was not a conception of the legislative committee, but was a formal instruction, after full debate, given that Committee by this Society. The Committee was given three years in which to accomplish the work.

This bill, before being presented to the legislature had been twice considered by the State Society in full session and endorsed by over fifty of our component societies, and had five times been presented to every member of each component society. Over 1,000 interested physicians of Illinois had contributed money, as well as time, in assisting the Committee in pushing the work. The officers of the Board of Health proclaimed that they were heartily in favor of a law, creating a Board of Examiners. Governor Yates gave the Bill unqualified support. The Bill was presented in the legislature by members of our profession, who are also members of our Society. One was a Republican, the other a Democrat. The Bill passed the Senate unanimously, not meeting with a dissenting vote. Can anything seem more auspicious than this picture? The Bill was never reported out of the Judiciary Committee to which it was referred in the House, although the Chairman of the Committee repeatedly promised to let it go to the House on its

merits. The action of this Chairman was a great surprise to your Committee, because it had been assured by the Secretary of the Board of Health that this was the best committee in the House to which our bill could be referred. The Legislative Committee had positive pledges from members of the House in sufficient numbers to have the bill passed, had it ever been reported. Yet your Committee and others familiar with the situation were painfully aware for weeks that the fate of the Bill was in jeopardy. You will ask, what influence could be so potent. The answer is simple. At least one important link in our organization was too weak to stand the strain. The chain broke just at the moment when every link should have been firmly welded for a final, united effort.

There were innumerable reasons given for the disaster. The Board of Health said, "It was the influence of the Homeopaths and Osteopaths, and the general opposition to the creation of new Boards." The Editor of the Journal says, "It was the influence of the Governor and his medical political advisors." Certain well informed members from Cook County say, "It was due to the treachery of the Chairman of the Judiciary Committee of the House." Others say it was due to the fact that, no body of men—even clerical—ever willingly accepted a measure reducing its own power, which would have been the case with the Board of Health had the Bill passed and become a law. But the Legislative Committee, after canvassing the question, believe it was due to incomplete organization. Our bill was not defeated by the politicians, it was not defeated by the Governor, it was not defeated by the homeopaths, osteopaths, or Christian Scientists; it was defeated by members of our own society.

Almost every measure asked for by the medical profession, which has failed, has failed because of the opposition or the lack of interest shown by members of the profession. Under the present system, some of the doctors who have attained political positions seem to consider it far more important to represent some group of politicians than to represent the Medical profession.

This does not apply to our condition in Illinois more than to most other states in the Union. This is not altogether the fault of the politicians and the office holders. It is the fault of our profession. It is the result of our failure to co-operate and act in harmony; of our love of individual expression of opinion often coupled with selfish motives; of pulling apart when we should pull together; of dis-organization instead of organization.

The politicians and political leaders never allow an opportunity to go by to impress upon the office holder that he owes his position to him and to demand that his allegiance and favors go with this obligation. What office holder owes his position to the medical profession, and from what office holder does the profession receive such allegiance as is granted our politicians. This is not altogether the fault of the medical office holder, who is subjected to the political tyranny of our present system, but rather the fault of our profession, which should emancipate and protect him. Our medical organization must form a balance wheel in partizan politics. It is a problem for organization.

During the past year I have had correspondence with a large number of officers of boards of health and boards of examiners in various states upon this subject. I have asked them what their relations were to the organized profession in their State, and what support they received from their professional organizations. In nearly every case the answer has been that the profession gave them no direct support, and indirectly only a limited interest. In fact, there seemed to be running through many of the letters a tone of discouragement at the attitude of the profession toward these officers. Several secretaries wrote me that they were trying to secure a better understanding with their societies and through them with the profession, and to receive a more active and live interest on the part of the profession.

Before we can act successfully as an organization, we must learn that each one has a duty to his profession and its recognized organizations which is above personal opinion. Each one has an "accountability"

to his profession, which is entirely consistent with the liberty of personal opinion. This accountability is greatly emphasized if a member has taken part in the conferences leading up to the action taken by the organization. Such expressions of personal opinion in opposition to the decisions of the Society can only be considered as professional treachery. If the one committing such a breach of ethics is in official position, either civil or in the Society, his "accountability" is increased, and his liberty of personal opinion and action, is diminished. Such a one is already assuming to represent his profession and should use the utmost care in following the decisions of his professional organization.

We have many members in our Society who stoutly repel any effort to have them follow organization leaders. The only bill which they can support is the one they frame themselves. They place personal and individual declaration of opinion above any which the organization or its appointed leaders may have formulated. It is desirable that such members should learn that "accountability" is one of the foundation factors in organization. All members are to a degree accountable to any organization to which they belong.

In a political pamphlet recently sent out by the Board of Health of Illinois, the Governor is reported to have said:

"The present Executive is willing, and doubtless every other executive will be willing, to listen to proper and reasonable recommendations, and it may be that in the appointment of professional Boards every executive will, in nine cases out of ten, select as members the persons recommended by the professions affected; in as much as the executive will doubtless assume that the profession affected is more interested and better informed than any other persons or citizens can possibly be." This is a very important suggestion, coming as it does from the chief executive of our own State. It is fully in line with the effort which has been made during the past two years by the Council of your Society to influence the medical appointments, and we should not be slow to take advantage of the suggestion.

In nearly all states we have allowed our affairs to get into the hands of the politician. They decide what we shall do, and how we shall be represented. There are a few bright spots, which point out what can be done, and what should be done.

In Alabama the State Medical Association is constituted by law the State Board of Health, the County Medical Societies in affiliation with the State Society, are constituted the County Boards of Health. This is in marked contrast with conditions in most other states. Of course, proper machinery is arranged within the Society for transacting the business, and the business is lodged where it belongs, where it is safest, where it receives attention untrammeled by political tyranny, and where the people receive the benefits of professional deliberation carried into execution. In a word, the organized medical profession furnishes expert advisors for the municipality, the counties and the state and names them.

The secretaries of Board of Examiners, in answering my inquiry show that even in states where the societies are not by law vested with power to elect or nominate, it is more common for them to take an active interest in suggesting the membership of such boards. Even in these, with a few exceptions, the relation of the profession to such boards does not seem to be satisfactory. Like the Boards of Health there seems to be a feeling on the part of the profession that these boards do not properly and fully represent them. It cannot be that this state of affairs is entirely due to the officers of our boards. Many of them are doing excellent work, but there is a lack of force to it which can only be supplied by active professional co-operation.

In our own State much good work has been accomplished. During the last six or seven years two "Medical Registers" have been published; important "Notes on the Sanitary Investigation of the Illinois River and its Tributaries;" and a reprint of a valuable work on "Poisonous Plants of

the United States" have been given to the profession; "A More Complete Sanitary Investigation of the Illinois River and Its Tributaries" was distributed by the Board in 1901; and recently an exceedingly complete and accurate directory of the physicians of the State, and containing valuable information on medical education and medical laws, has been published. These, and several other publications, are of vital interest and importance to the profession.

While it has not been made a matter of report it is probably known to many of you that the Board has been almost constantly lending assistance to local boards of health in controlling and stamping out epidemic diseases and in investigating and suggesting various means for improvement of supplies of drinking water. All these things have been done by our Board, for which we should be truly thankful. The Board in Illinois has a history of which all are justly proud and many of its achievements have been brilliant and lasting.

I have never been able to obtain a satisfactory explanation of why our Board has discontinued the publication of the Annual Report. It has now been seven years since any detailed report of the work of our Board of Health has been given to the public or the profession, except a few scraps here and there, in the daily papers and medical Journals and an occasional bulletin. We have no reports which appear regularly, keeping us informed of the work of the Board and in a form to put aside for future reference. The fact that in former years the annual report did not appear regularly is not a reasonable excuse for discontinuing them, but rather should impress the desirability of having them appear regularly. The publications mentioned above, while valuable, are in no sense reports of the work of the Board, either on Public Health or Medical Education and Licensure. Most states, of the importance and size of Illinois, publish reports which keep the profession informed about the work of the Board and show how its members can co-operate with and support the work.

Therefore, I am lead to believe that the relation of medical societies to boards of health, both local and state, and to boards of examiners, are not what either party would have them and are among the vital questions of the day.

We must continue and complete our reorganization, and then take hold of these problems and control them. Who are the natural conservators of the public health? Are they the governor, the politicians, or even the health officers? No, the great medical profession, and it alone, stands guardian over the public health. This work is our legitimate field and our most natural duty.

No local health officer should have the temerity to present a health measure for adoption until it has first had the benefit of the discussion and the approval of the local medical organization. The same principle should prevail in state health matters. Every health measure, before it is presented to the Legislature of Illinois, should have the seal of approval of this Society, and no officer, or member of the Board of Health, should prefer to act independently or in opposition to the debates and resolutions of this organization. He should consider it a privilege, as well as a duty, to represent his profession and, as an executive officer, continually put into effect the results of professional progress. The profession should wake up; should realize their duty; and should get actively behind all health legislation and all health regulations. Who else is competent? What other organization or upon what other set of men is such a duty placed? None.

There is no trouble with city councils or members of the legislature; there is no trouble with mayors or governors. These men call us when they are sick, they have confidence in us; in private they confide to us their most distressing and painful secrets, knowing that their confidence is not misplaced, and if we do our part they will have the same confidence with us in public life. If they do not hear the whispers of some selfish self-seeking medical official, trying to secure personal gain by undoing his profession, they will pass the laws which we recommend.

Our societies must take up this practical work. Perhaps it is not so easy for the public to see that health matters naturally belong among the civic duties of our profession, but it certainly should be clear that the regulation of the practice of medicine is purely and solely a professional matter.

Governor Yates is a life time friend of whom I am justly proud. I feel that he has conscientiously tried to do much for our profession. He has repeatedly said to me that the officers of the State Board of Health were appointed because they were supposed to represent the medical profession; that they were recommended by members of our organizations, and for that reason, and that alone, received their appointmnets. He has tried to do what he thought the profession desired. However, in his veto of the dental bill he took occasion to say some important things about the danger of government by societies. The Governor has recently written me that he heartily approved of the medical bill and would gladly have signed it had it passed the Legislature. I am aware that many physicians in this State hold the Governor responsible for its defeat, but I believe that responsibility belongs to this Society.

It behooves us to exercise the greatest care in recommending to mayors, county boards, or governors, those who are to represent the medical profession. We should avoid those who do not consider the carrying out of the expressed will of the profession a duty. Our medical office holders should be good politicians, in fact should be too politic to allow their profession to be betrayed to those having no interest in its aims. We should avoid those who make personal interests paramount, or who through the careless use of their official positions, defeat the expressed wishes of our professional organizations.

I believe that if this organization at this meeting should nominate members of the Board of Health to succeed those whose terms may expire between now and our next meeting, any governor would give serious attention to such nominations.

We must demand some voice in the appointment of members to medical offices. The least which we should be satisfied with should be the right to nominate such officers to the appointing power. More than a dozen states now have such provisions in their laws. Several states have far more radical laws in which the officials are appointed or elected by professional organization. The medical organization is constituted the official machinery for guarding the public health and regulating medical practice. This is the natural and proper order of things and a study of the new laws being placed on our statute books will convince you that this is rapidly becoming a demand of our people. It has been suggested that all such officers be elected by direct ballot, every liscentiate being eligible to vote.

All must recognize that this organization is not for financial gain, but is really for the benefit of the people by the advancement of medical science and art, and the improvement of the members of the profession.

The regulation of the practice of medicine should be a matter wholly within the profession. We are the ones to ask for it; it is our own advancement and protection; we pay the bills, and no one outside of the profession, not even the Governor of the State, should have controlling interest or concern in it as long as injustice is not done any citizen. It is not necessary, constitutionally, or otherwise, that such a board should be appointed by the Governor.

Your last Legislative Committee spent a considerable sum of money to secure the best legal opinion this State could afford on this point, and the statement that there is nothing unconstitutional in permitting boards to be nominated or even elected by those they represent is based on the opinion of one of the best constitutional lawyers, and an eminent ex-judge of the supreme court, as well as of several other attorneys of prominence. Therefore, I repeat that the bill proposed contained nothing which was unconstitutional.

It is admitted that if the Governor clearly sees any injustice being done any citizen or body of citizens, by such a law, it is his right and duty to dissolve such a Board and him-

self appoint such members as he thinks will secure justice.

It is a mistake to suppose that all boards of examiners in this State are appointed by the Governor. Who appoints the Board of Examining Lawyers? Does the Governor? No. The lawyers do this through the Supreme Court. The lawyers have been careful of their own interest and kept the regulation of the practice of law within their own profession where it rightly belongs.

The members of the State Board of Pharmacy are appointed by the Governor from nominations sent him by the State Association of Pharmacists. The law requires that the Illinois Pharmaceutical Association shall report annually at least three names to the Governor, whom such Association deem best fitted to fill any vacancy. This is practically the same proposition asked for by the physicians, dentists and nurses in their bills, before the last legislature.

The Board of Examining Veterinary Surgeons consists of three members, appointed by the State Board of Live Stock Commissioners, without any reference whatever to the Governor.

The members of the State Board of Agriculture are elected on the State Fair grounds by delegates sent by the county agricultural societies. The Board consists of a president and vice-president from each congressional district, who with the last ex-president form the Board, which has control of all the affairs of the department of agriculture.

The State Horticultural Society is a state public corporation, managed by a board consisting of the president and secretary of that Society, and the president and vice-president of each of the three district horticultural societies. The members of this Board are elected directly by the Society.

Examples of this kind might be greatly multiplied in this State if it was necessary. The last Legislature which defeated our bill and passed the dental bill and nurses bill, which were vetoed by the Governor, passed the expert accountant law, which provides for a board of examiners to be appointed by the University of Illinois, without any reference to the Governor.

How is our organization to effect a change in the present situation? How are we to secure men in medical positions who will represent us on all occasions, instead of men who represent us when it suits their pleasure, or when we are a desirable quantity for endorsement? In fact, how are we to secure genuine professional representation in official positions? Certainly thorough organization must precede any such consummation. Practically, it is necessary that the medical profession assert the political power, which their position and influence should give them.

This can only be done by agreeing to some proposition and every man in the Society working for it whether it happens to suit his individual views or not. Essential to securing this end, are executive officers of the Board of Health and Board of Examiners, who can be relied on to make the interest of the medical profession paramount.

We must secure laws which give the profession at least the right to nominate members of these various boards, local as well as State. This is certainly the most natural thing, and cannot possibly injure any citizen. In fact, it will greatly improve the work of such boards.

Is not the Chicago Medical Society competent to nominate the local health officers of Chicago? Are not the physicians of Chicago sufficiently informed regarding sanitary and health matters to be entrusted with such nominations? Do they not take sufficient interest in health problems to qualify them for the selection of health officers? Do not the physicians of that greatest of all American cities meet all the cases and conditions demanding health regulation? It is time our societies added practical work to the reporting of cases and the reading of papers. We must broaden our work. As our science has extended, our responsibilities have increased. We have been the silent partners of the politician and political doctors too long already for our own good, as well as for the good of the cause. Some

may think such views too radical, but if the signs of the times can be read aright, they are as sure to come as the re-organization prophecy by Dr. Byrd, 18 years ago, now being adopted not only in Illinois but in the whole nation.

The problems of the regulation of medical practice are quite different from those of health regulation and sanitation, and are even more at the door of the profession for solution.

It is no permanent loss that our last bill failed before the legislature. The source of that failure is of inestimable value in showing us some of our weak points. The principal thing which the new law would have accomplished was to place in the Capitol at Springfield an executive medical officer who really and fully represented the profession. This would have given the profession the greatest possible advantage in securing desirable legislation, and in fact without such constant representation in the Capitol we can never accomplish what we desire. As long as our representatives are under more obligation to the politicians than they are to their profession, we will be handicapped in securing desirable legislation.

In nearly all our states the Board of Examiners is also trustee of preliminary education, as well as medical education. A much more comprehensive plan should be adopted than was proposed in our last bill. Such a plan should place the control of preliminary education in the hands of our educators.

All professions requiring license, based upon educational qualification, should be brought into consultation, and a plan agreed on by which the problem of preliminary education would be completely provided for and placed outside of any of the professional boards. We should not have the spectacle in this State of a dental school refusing a student on account of deficient preliminary education, and a medical school accepting the same man and the Board of Health approving his preliminary qualifications. There should be some way to control institutions, granting degrees. At present there is no means of arriving at uniformity in preliminary education. Each professional board makes its own rules. The desirability of some such plan is shown by the fact that some professional schools in this State have referred all questions of preliminary education to the State superintendent. Many states are seeking to solve this problem with more or less success. So far none of the laws seem perfect and yet several are very far in advance of our own position. Some kind of an educational board or commission should be established on such a basis that it can deal with all phases of education. The matter of preliminary education must of necessity be in the hands of men other than physicians, or at least in the hands of a board, the majority of whom, are not physicians, if we are to attain the highest ends. Many men who have had wide experience in the matter of granting license upon examination, consider it a foundation principle in all departments that where the examiner comes directly in contact with the applicant there is no chance for a successful administration of the law.

We should have a commission representing the educational system of this State, in all its departments. This commission should provide for the academic qualifications of those desiring to enter the professional field and no man should be eligible to enter upon professional studies until he has met these qualifications.

Such a commission should be made up of representatives of all the professional boards, and should have some supervision over the law, governing each profession. There should be some arrangement by which the applicant for license should not come in direct contact with any member of such a board. The high schools, academic schools, colleges and universities should all be governed and directed by a commission whose standing would be such as to disarm any possible possible criticism, and whose terms of office would be such as to make political interference impossible.

I believe that it is time we invite consultation along these lines and develop some plan of carrying into effect this higher plan of educational regulation.

Suppose Illinois had an educational commission of whom the Governor was president ex-officio, the Superintendent of Public Instruction was the president, with the Lieutenant Governor, the Secretary of State, the president of each board of examiners and fifteen representative educators and citizens as the remaining members, such commission to have entire charge of all questions of education, both preliminary and professional.

I do not believe that it would be difficult to get the various professions of the State to endorse such a movement. The difficulty, as I understand it, is in the relations existing between our small colleges and our great universities. But it would do away with all annoying questions arising with boards of examiners over preliminary education, as every student appearing before them for examination would have to present a certificate from the commission, showing that he had received a proper preliminary education.

While this is a large problem, it certainly is one for study and solution in the near future. So many abuses have crept into our present plan that the degree granting institutions must get together. If we had such an educational commission, of which the Governor was ex-officio president, it would take away, in large degree, the objections which are urged against boards nominated by the professions.

There are innumerable advantages which would accrue in closer relations between our educational schools and our professional boards. They could be of immense assistance to us, and at the same time could better understand and appreciate our needs if we are associated in some such commission as has been suggested, but I will not take up more time with details.

It is to be hoped that this wave of re-organization will go on until some of these ideals at least have become facts. Almost every physician has felt the desirability of closer relations with our boards of health and boards of examiners. The profession is beginning to awake from the animosities which have so often estranged its members and weakened its influence. It has begun to take hold of the complicated problems of our new civilization, and seek their solution. Our new plan of organization is patterned after our system of civil Government, and is in no sense an experiment. It is sufficiently elastic to provide for any scientific advance. It is designed to make each member a useful unit in collecting data and placing it properly before the profession. When each state in this great Union has adopted the plan, the problems of preliminary education; the conferring of degrees and granting of licenses; of reciprocity between States; the relation of the profession to Boards of Health, and to the problems of sanitation and preventive medicine; the relation of physicians to each other and to the public, will be made easy. We will develop medical statesmen whose greatest duty and pleasure will be to lift our noble calling to that high plane so long desired.

This reorganization will evolve the new physician, who is so true to himself and his fellow man that he can co-operate in every good and just movement.

Let us show to the public, by our frank and fair criticism, our high ideals and our noble impulses, that we are prepared by liberal education and thorough training to guide and control all the problems of medical education, health regulation and sanitation, both public and private, as well as to bring to the bedside the science and art which will relieve pain, ameliorate suffering and cure disease.

THE POWERS AND LIMITATIONS OF THE PHYSICIAN AS DISTINGUISHED FROM THE SURGEON.

BY WM. E. QUINE, M. D., CHICAGO, ILL.

Address before the Section on Medicine delivered at Bloomington, May 17, 1904.

The processes of surgery are so direct and plain as compared with the less obtrusive and more complex processes of medicine that it is not surprising a question arises now and then in the minds of those of our profession who have not given due consideration to the subject, concerning the value of medicinal therapeutics to the sick.

It is not uncommon to hear from the lip

of such persons the declaration that they "haven't much confidence in medicine;" or the dogmatic and discrediting statement that "medicine is powerless to affect the course or the mortality rate of self-limited infectious diseases, such as pneumonia and typhoid fever."

It is the purpose of this paper to set forth in general terms the range of power and the limitations of therapeutics, with especial reference to medicinal therapeutics, in the hope of prompting the more voluble and opinionated of these brethren to do a little thinking before giving utterance to statements which are not only without foundation in fact, but are directly injurious to the standing of the entire medical profession.

That the subject of therapeutics is being neglected in our medical colleges, in consonance with a widespread tendency in the profession toward therapeutic nihilism, is painfully apparent. Of the medical practitioners I know, and particularly those who "don't believe much in medicine," comparatively few are well grounded in the therapeutic art and not one in ten is able to write prescriptions correctly; and in the recent competitive examination for appointments to the house-staff of the Cook County Hospital, Chicago, of the seventy-two participants, representing the flower of the graduating classes of the best medical colleges in Chicago, there was not one who showed ability to earn a higher rating than fifty on a scale of one hundred in this fundamental requirement, and not ten who showed ability to earn a higher rating than twenty-five.

What is left unsaid in this connection of the inferior graduates of inferior colleges, is suggested as food for reflection.

Now, is it, in truth, a matter of no consequence to a pneumonia or a typhoid fever patient whether he have as his physician the most enlightened member of the profession, or the most ignorant?

Look for an answer to the facts of universal knowledge: Some members of the profession are habitually overwhelmed with calls for their services, and others go through life appealing in vain for even a comfortable amount of the recognition and favor of the world; some are eagerly sought in consultation by their brethren on account of therapeutic skill and others never; and when the professed therapeutic nihilists themselves are sick they swallow medicines as eagerly as anybody and ask as few questions.

Before undertaking to expound the problem we must make sure that we agree upon its terms.

The word "cure" (from *cura*) means, etymologically, "to take care of;" and it is used in this sense today by the physicians and the most intelligent laymen of continental Europe. The expression, "To cure a patient till he dies," does not seem absurd to such people.

Conventionally or derivatively, however, the word signifies, "To restore to a healthy state."

In this sense do medicines cure diseases and, specifically, do they cure infectious, self-limited diseases, such as pneumonia and typhoid fever?

They do.

It is not claimed that medicines can interrupt the succession of steps or stages constituting the natural history of such a disease.

It is not claimed that the therapist can put an end to it at all by direct force of medicinal action.

But it is claimed that he may promote natural processes which tend to, and finally effect, the re-establishment of health; and that, in some cases re-establishment of health would not occur without his assistance. In that sense medicines "Restore to a healthy state."

The limitations of medicinal influence were as clearly recognized a thousand years ago as they are today; and the fact is exemplified in the old Latin line, "*Medicus curat, natura sanat morbos.*" (The physician cures, but nature heals.)

The physician, therefore, is merely nature's helper, and to help he must promote nature's processes, and never embarrass or try to supplant them.

Having thus guarded against misunderstandings, we are prepared to engage in the systematic exposition of the subject.

The fundamental elements of disease are

the *cause* and the *effects* of its operation. These effects are divisible into two groups,—morbid anatomy and morbid physiology. Each or either of these, the cause, the morbid anatomy and the morbid physiology, may be within the reach of therapeutic influence.

A. *The cause.* "Remove the cause and the effects will subside," saith the sage; and the truth of the proposition is exemplified every day in the cure of local and reflex disorders. But when the cause is a systemic infection, we cannot remove it except, possibly, in the case of malarial disorders and a very few others.

Nevertheless, in such cases, if it be true, as is generally assumed, that the gravity of the sickness depends on the degree of concentration of microbic poisons and the noxious products of metabolism in the blood, it would seem certain that we may lessen that gravity by diluting the blood and washing the poisons out of it.

I am sure there is large practical value in this idea, and that it does not receive the attention it deserves. Hygienic remedies are habitually neglected by many physicians in favor of routine medication, and always to the detriment of the patient; and in systemic infections one of the most valuable remedies is *water*. Given in typhoid fever, pneumonia and other disorders of like kind to the extent of causing an outflow of fifty or seventy ounces of urine daily, and of maintaining sensible perspiration besides; given by the stomach, by copious colonic flushings—a quart or more at a time, but always very slowly, and then repeated every six hours through a rectal tube left *in situ;* and given subcutaneously in the form of normal salt solution in cases of perilous urgency; water makes a decidedly favorable impression on many threatening symptoms and, apparently, by washing out the toxins which have been causing them—thus exemplifying the surgical concept of drainage.

I am also sure that the value of the hydriatic treatment of febrile disorders introduced by Brand is owing, in no small measure, to the elimination of toxins by the kidneys, as shown by increased toxicity of the urine, which has been proved in many instances to follow its use.

Water efficiently employed internally in systemic infections and intoxications lowers temperature, subdues delirium, promotes sleep, lessens circulatory and respiratory derangements, and conserves the strength of the patient; and it accomplishes these results, apparently, by acting on the cause. Evacuant medicines, and especially those of the saline class, may be employed with advantage in many cases as auxiliary remedies. Usually we can do no more than this in the direction of directly acting on the cause of an infectious disease.

B. *The Morbid Anatomy.* This is nearly always placed in improper contrast with morbid physiology and, in many instances, its importance is enormously overestimated. Too often it is regarded as "the disease," by the surgical apprentice. Measures addressed to its removal are usually, if not always, contemplated with great satisfaction by him—the satisfaction shining in the expression "radical treatment;" whereas, treatment addressed to the removal or mitigation of morbid physiology is contemptuously characterized as "merely symptomatic," as if it were a sham show of usefulness,—an obvious pretence of efficient life-saving service. We shall see.

It is freely admitted that, in numerous instances, the morbid anatomy is the only element of the patient's sickness of commanding importance. Such it is in gangrenous appendicitis, pus collections, neoplasms, hernias, invaginations and so on throughout the field of surgery; for surgery deals almost exclusively with morbid anatomy. And we make respectful and grateful acknowledgements to our brethren of the scalpel for the glory which their achievements in this field have shed on the entire profession—no mean part of which is due to the surgeons of our own State.

But morbid anatomy is not all there is of disease. It is often an insignificant element of it for, when it does not cause morbid physiology, it does no harm.

What harm is done by a valvular heart lesion when it does not interfere with normal

physiology? Who, of large experience, has not seen a dozen cases of that kind run on for ten or twenty years without the least disturbance of health?

It is morbid physiology that compels attention in such cases, and when the attention is given with the effect of sustaining the function of the diseased organ, the life of the patient is prolonged and made comfortable for many a year.

What harm is done by gall-stones, or by a movable kidney, or by a displaced uterus or ovary, or by pelvic adhesions, or by a neoplasm, when the condition causes no symptoms—another name for morbid physiology?

Should a patient be eviscerated under such circumstances, or be frightened into an operation for replacement and fixation of the displaced or abnormally movable organ? Not at all. Such practice is deserving of the sternest condemnation of the profession, for it furnishes too many examples of surgery for revenue only. And suppose a patient have pelvic adhesions, or what not, and in consequence thereof distressing dysuria or other kind of morbid physiology; and suppose that every vestige of distress is permanently relieved, without the morbid anatomy being changed at all, either through the agency of medicinal impression, or that of a profound mental influence, such as is exemplified at Lourdes, France, every day, and in the activities of the Christian Scientists of our own country—is not the cure just as genuine and just as radical as if the patient had been eviscerated?

This is not a fantastic picture. It represents facts of observation which can neither be ignored nor denied.

Morbid anatomy *may* be the only element of disease requiring attention, but there are many cases in which much morbid anatomy exists without causing ill-health or morbid physiology, or in which the morbid physiology having existed, disappears. In these there is no warrant for surgical interference, unless for the purpose of protecting the patient from liability to sarcomatosis or other formidable development in later life.

While the activities of surgery are, in large part, related to morbid anatomy, they are by no means limited to that field; for surgery also renders valuable service in dealing with causes and morbid physiology. There are types of morbid anatomy, unfortunately, which by reason of location or nature are beyond the reach of the surgeon, and equally beyond the reach of the medical therapeutist. Indeed, it may be questioned whether the latter have any important influence on morbid anatomy, with few exceptions, when the medicines have to act upon it through the medium of the circulation. Iodine in actinomycosis, mercury and iodine in syphilis, arsenic in squamous diseases of the skin, iodo-thyroidein in myxoedema, and in cretinism, and the medicines used successfully in the treatment of inflammatory affections of mucous membranes, are among the most important exceptions now in mind. But when medicines are brought to bear directly upon morbid anatomy, they often affect it profoundly and determine the restoration or cure of the patient. This is the field of the medical specialist.

As to the internalist, he finds his greatest usefulness in the domain of

C. *Morbid Physiology.* When he can wield the weapons of his art with skill and effect in this field, he may well contemplate with composure the sneering criticism that his treatment is "merely symptomatic;" for he knows only too well that, in medical practice, symptoms or morbid physiology, due to toxaemia, often cause death when there is not enough morbid anatomy present to make any important impression on the tenure of life.

Contemplate the effects of a lethal dose of morphine, atropine or strychnine, and the life-saving influence of the physiological antidote of such a poison; and then say whether microbic poisons may not act and may not be counteracted in like manner.

Look at your case of pneumonia. Yesterday the patient was at the point of death, and today he is comfortable and out of danger. What has wrought the change,—disappearance of morbid anatomy? No, there is as much morbid anatomy today as there ever was. The change is due to arrest in the production of toxins and to

the destruction or elimination of those which had been circulating in the blood and causing "symptoms," or the derangements of function which we designate morbid physiology. The toxaemia and its consequent "symptoms" having ceased, convalescence is at hand.

If such derangements of function are mitigated by medicinal or hygienic influence —high temperature, delirium, pain, cough, insomnia, anorexia, vomiting, impaired digestion, dyspnoea, and failing circulation— while the toxins causing them are being eliminated as actively as possible, and the heart is kept going with the help of carbonate of ammonium, strychnine and caffeine till the process of intoxication comes to an end, are you ready to say that "the physician is powerless to influence the course or the mortality rate of the disease,—or of any other disease of like kind?"

It seems to me that the judicious treatment of "symptoms" is of mighty importance, and as genuinely life-saving or curative as any of the processes of surgery.

High temperature is a symptom,—and whether it be caused in a perfectly healthy person or animal by solar or artificial heat or appear in the course of an infectious disease, it may kill,—and it may be controlled, —safely by hygienic remedies, and unsafely by medicinal antipyretics.

Pain is a symptom, and it may kill,—or be controlled; and I think I have seen it kill in a few surgical cases,—the surgeon having withheld morphine because, forsooth, the morphine might obscure the symptoms of a peritonitis that was already known to exist, and, indeed, had been the basis of a laparotomy a while before.

Vomiting, purging and hemorrhage are symptoms; urinary suppression and the phenomena of uraemia are symptoms; ascites, anasarca, oedema of the brain and of the lungs are symptoms; insomnia, delirium, convulsions and coma are symptoms; the phenomena of respiratory and circulatory failure are symptoms; and they may kill,— or be controlled. Is symptomatic treatment to be despised, then? As a matter of fact, is it not as truly life-saving as any "radical" treatment that was ever invented; and is not the physician as genuinely useful to humanity as the surgeon?

I repeat, no claim is made that medicines can interrupt the succession of events which constitutes the natural history of an infectious self-limited disease; but it is quite plain that such a disease may be "cured" by medicinal and hygienic agencies in the sense of being helped by those agencies to a favorable termination which would not otherwise occur.

But when an overwhelming dose of poison, whether medicinal or microbic, gets into the blood and cannot, at once, be eliminated or destroyed, its paralyzant effect goes on and on to the arrest of function and to consequent death, unhindered by any amount of physiological antidotes that can be brought against it; and when an advancing process of morbid anatomy that is beyond the reach of known therapeutic influences goes so far that not enough normal anatomy is left to maintain function even with the assistance of medicinal or hygienic remedies, the time and conditions are at hand which point to the limitations of therapeutic power.

The range of power of the physician has been greatly enlarged, of late, by the addition to his armamentarium of antitoxins, iodo-thyroidein, and the Roentgen ray, so that there is good ground for the hope that the laboratories of the biologist and physicist may in time outrank in beneficient productiveness the laboratories of the pharmacist.

We treat conditions,—not names; the man not "the disease." Morbid physiology is morbid physiology, no matter how it is brought about, and we must deal with it and its cause without reference to the disease in which it occurs.

To "Obviate the tendency to death," as the old therapeutic philosophers expressed it, is the basis of all rational effort; and this is done many a time intelligently and successfully without the aid of clear conceptions of pathology or of extensive acquaintance with the revelations of the microscope, by hard-headed, sensible doctors.

There is many an unpretentious member of the profession who shrinks from a di-

cussion of histology, and is silent in relation to the intricate problems of differential diagnosis, who has gone further than many professors and many makers of books into the domain of therapeutics, and can put them to shame in respect to familiarity with the resources of the curative art, and capacity to wield them with discrimination and success.

CLINICAL EXPERIENCES IN SURGERY OF THE GALL BLADDER AND DUCTS.

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Address before the Section on Surgery delivered at Bloomington, May 18, 1904.

During the past twenty years the surgery of the gall bladder and ducts has received the especial attention of so many of the ablest surgeons of this country and of Europe that at the present time those who have worked extensively in this field have come to look upon many important features of gall stone surgery as practically settled.

The additions which have been made in the development of this subject by Courvoisier, Terrier, Robson, Riedel, Kehr and many others abroad, and Fenger, Mayo, Brewer, Richardson and others in this country,—a number of important facts having been brought out by members of this association, have been so frequently and thoroughly discussed that those who are especially interested in gall bladder surgery are very familiar with these facts. It may consequently seem unnecessary once more to occupy the time of this society in the consideration of this subject.

It is, however, important that our attention be directed again and again to this subject until every practitioner of medicine shall be alive to its importance as thoroughly as the surgeon whose constant contact with this clinical condition prevents him from overlooking these cases in his practice.

That at the present time these cases are overlooked very commonly is shown by the fact that more than one-half of the cases whom we have operated for the relief of gall stones have been treated for many years by a number of physicians for gastritis or gastralgia or enteritis, no diagnosis of gall stones having been made. A few years ago quite a proportion of these cases came to the hospital with a diagnosis of intestinal indigestion, but gastritis is a much more common diagnosis.

There is, however, another reason which makes it desirable especially to the patient that every practitioner's attention be directed to this subject.

In every patient suffering from gall stones there is a time when this condition can be diagnosed while it is still possible to relieve the condition with ease and without any great danger to the life of the patient. There is a time when a simple cholecystostomy with drainage of the gall bladder will give the patient permanent relief. This is at a time when the gall stones are still confined to the gall bladder before they have given rise to an inflammatory condition of the cystic duct or the common duct, before there has been a secondary infection of the liver or the pancreas, before there has been an obstruction of the common or cystic duct with their dangerous sequelae.

There can be no doubt from what clinical experience has taught us that practically all of these and other complications, which will be discussed later on, could be prevented if the attention of every practitioner were so thoroughly directed to this condition that the earliest possible diagnosis would regularly be made. I have observed many times that a practitioner whose interest had been aroused by observing a considerable number of these cases during his post-graduate work would return to his home and his practice and find among the cases he and his colleagues had treated for years for gastritis many patients suffering from gall stones. Had his attention not been thus directed toward this condition he would undoubtedly have continued treating these cases for the wrong disease. This was not due to the difficulty of making a correct diagnosis, but to the fact that they were not watching for gall stones.

If then this effort will serve to prepare some one to find this condition where it exists, it will have abundantly served its purpose, although it may contain but few new facts.

Regarding the etiology it is necessary to mention but two conditions, first, interference with drainage of the gall bladder and, second, infection.

The latter condition should be considered secondarily, because primarily without obstruction to the drainage infection is almost impossible for the free flow of bile washes away the infectious material so rapidly that there cannot be a sufficient accumulation from development of micro-organisms in the gall bladder or ducts to be of any practical importance as has been shown by Netter.

Moreover, normal bile when in the gall bladder or ducts free from obstruction is so poor in nutrition (Birch) that micro-organisms cannot flourish. This, however, changes as soon as there is an obstruction, because the mucous which at once begins to accumulate contains an abundance of nutritious material for the support of micro-organisms.

For these reasons normal bile is ordinarily sterile, (Naunyn) while in the presence of disease of the gall bladder in which there exists partial or complete obstruction micro-organisms are always present. The same is true in the gall bladders in which there has been produced an artificial obstruction by ligation of the common duct after a period of twenty-four hours, (Netter.)

This obstruction is, however, in turn the result of an inflammation which may be produced by an infection of the mucous lining of the common duct from the inflamed mucous lining of the duodenum. This is probably the most common source of obstruction.

Another cause of obstruction which is not uncommon results from the fact that during the presence of an acute peritonitis due to appendicitis, salpingitis, puerperal infection, ulceration of the stomach or duodenum with threatened perforation or during typhoid fever the omentum becomes adherent to the gall bladder and this draws down the fundus of this pouch and causes it to become sacculated. This tension may even cause a certain degree of torsion of the common or the cystic duct, thus favoring the accumulation of residual bile, which when mixed with the mucous secreted by the glands in the lining of the gall bladder makes a better culture medium for micro-organisms.

With these conditions present the most common cause of dangerous obstruction to the bile passages namely, gall stones, is readily produced.

Singularly enough, the mere presence of gall stones is again a comparatively harmless condition so long as the mucous membrane is otherwise relatively normal i. e. so long as there is present neither obstruction nor infection. Here again, usually the obstruction comes first.

It is, however, to be remembered that in any case in which gall stones are actually present obstruction is much more likely to occur than in normal conditions, because the gall stones may enter the cystic or the common duct, or a gall stone may cause an obstruction by acting like a ball valve, (Fenger.)

Aside from this, however, the common or the cystic duct or both are usually impaired to some extent after recovery from the primary condition which gave rise to the formation of gall stones.

The infection which accompanies these secondary conditions is usually much more violent than the primary infections giving rise to the formation of gall stones.

DIAGNOSIS.

In order to secure surgical treatment of diseases of the gall bladder and ducts at a time when it can be safely applied before the patient has suffered from the dangerous secondary conditions it is necessary to make a diagnosis before the symptoms which once were alone considered diagnostic have appeared. These symptoms are: first, severe gall stone colic; second, severe icterus; third, clay colored stools and fourth, passage of gall stones.

It is true that these symptoms should be looked for and when found they should be

utilized in making a diagnosis, but it is equally true that in more than half of all patients suffering from a surgical disease of the gall bladder or ducts one or more or even all of these symptoms are absent.

It has been stated over and over again that a large proportion of patients who have gall stones do not suffer because of their presence. That this is a mistaken idea, I believe has been conclusively proven in the following manner.

In all patients coming under my care who had gall stones, but who had none of the above symptoms in a sufficiently marked degree to have caused a diagnosis of gall stones before they came under our care, we questioned carefully as to their suffering. They usually answered that they had never suffered from gall stones, but severely from gastritis for which they had all been unsuccessfully treated by several physicians.

This fact led me some six years ago to look up a number of patients whom I had referred to the practitioners of internal medicine for the treatment of gastritis and found that most of them were suffering from gall stones, some of them of pyloric obstruction and a few of them from appendicitis.

These patients in other words suffered both from gall stones and from a diagnosis of gastritis or the useless attempts of its treatment by non-operative measures.

This fact has led some to suspect gall stones in all cases in which severe gastric disturbances could not be permanently relieved by internal treatment in the absence of pyloric obstruction, due to ulcer or carcinoma and in the absence of obstruction lower down in the alimentary canal, due to appendicitis or peritoneal adhesions due to any other inflammatory cause. Patients suffering from gastric disturbance due to a neurotic condition should also be eliminated.

At this point it seems proper to direct attention to the fact that there is in the presence of gall stones frequently a physiological obstruction in the duodenum at a point just below the entrance of the common duct. My attention was first drawn to this fact by observing a dilated condition of the duodenum above this point in many of these cases.

This has been further confirmed by making a chemical analysis of the vomited matter in a large number of cases. To my surprise, I found that with the exception of cases in which the common duct was completely occluded, the vomited matter contained bile in every instance, showing that the act of vomiting does not begin at the pylorus, but at a point in the duodenum below the entrance of the common duct.

The frequency of the occurrence of duodenal ulcer above this point and the rarity of its occurrence further down would still further bear out this theory.

Another clinical fact of enormous practical importance has been observed in a large number of cases in the series upon which this paper is based and would further bear out this theory. It was found that in cases of severe acute biliary colic the pain could be stopped within a short time, usually within an hour, by simply irrigating the stomach thoroughly through a stomach tube with warm water. This was true even in cases in which large doses of morphia given hypodermically had failed to give relief.

In these cases pain did not recur unless some form of nourishment was placed into the stomach which would be compelled to pass this point in the duodenum. That this is an actual clinical fact has been proven in a considerable number of cases by removing the gall stones from the gall bladder or ducts after the acute attack had subsided. Were it not for these further observations one might readily suppose that the patients had indeed suffered from gastritis, and that their pain disappeared because of the removal of the irritating stomach contents.

1. The first symptom then to be considered in point of importance is pain in the region of the stomach accompanied with digestive disturbances.

2. This is accompanied with pain extending around to the right at a level with the tenth rib and often extending upward underneath the right shoulder-blade. In case there is present a secondary pancreatitis this pain may extend to the middle of the back

or even to the left of this point, but this is a secondary condition.

If the pain is primarily in the middle of the back or to the left of this point with the other symptoms the same it usually indicates an ulcer on the posterior wall of the stomach.

3. There is a point between the inner end of the ninth rib on the right side and the umbilicus which is painful upon pressure, (Robson.)

4. There is usually some enlargement of the liver.

5. Many of these cases give a history of typhoid fever or appendicitis or both.

6. In many of these cases there is a slight tinge of yellow in the skin, although there is no distinct icterus. This is true especially when the patient claims to be bilious.

7. There may be an enlargement in the vicinity of the gall bladder. This may be so marked as to give rise to the diagnosis of a tumor and it may be so movable as to be diagnosed a floating kidney, or so large as to be mistaken for an ovarian cyst.

TREATMENT.

It would be far too tedious were I to review here the histories of nearly four hundred cases of diseased gall bladders or ducts which I have operated, but a review of these cases confirms most strikingly many of the conclusions at which other surgeons have arrived and which it may be well once more to emphasize.

1. A review of these histories shows that interval operations are exceedingly safe, no matter in what portion of the gall bladder or ducts the gall stones may be located, provided free drainage of the gall bladder or ducts is established at the time of the operation, and provided also that the amount of traumatism has been reduced to a minimum.

2. Conditions are favorable for free drainage because the persistent partial obstruction to the flow of bile previous to the operation usually causes a certain amount of hepatic enlargement and as soon as free drainage is established, permitting the entirely unobstructed flow of bile, the latter appears in great quantities and washes away any small amount of infectious material which may still be formed in some portion of the biliary tract.

3. The introduction of this element in operations for stone of the common duct by Davis has resulted in a remarkable improvement in the results in this class of cases after operation. Mayo, Kehr and most surgeons of the widest experience lay especial stress upon this feature.

4. For a time this was not sufficiently appreciated in cases in which cholecystectomy was performed, but experience soon demonstrated that in cases in which the cystic duct had not been completely occluded previous to the operation it was not a safe matter to remove the gall bladder without draining the common or the hepatic duct.

5. Acute cholangeitis is readily caused by the backing up of infected bile into the liver following an operation in which proper provision has not been made for free drainage and in which there existed at the time of the operation a certain amount of obstruction to the common duct.

6. The importance of limiting the manipulations as much as possible during the operation should be emphasized because much depends upon this. Primarily the shock is greatly reduced in this manner and secondarily the likelihood of infection is greatly reduced. Ordinarily, probing of the ducts is dangerous. I have seen several exceedingly severe infections result from this practice. It is much better in cases in which one cannot make a satisfactory examination of the common duct by palpation to make a longitudinal incision sufficiently long to introduce the end of the index finger for exploration, than to attempt accomplishing this by probing.

7. Common duct operations can be made with much less manipulation if one follows the suggestion of Mayo-Robson in placing a thick, round pillow transversely across the back opposite the tenth rib and has the lower edge of the liver elevated by an assistant. The long incision recommended by Bevan is very valuable in connection with this position. This places the common duct in an almost straight line with the gall bladder and the cystic duct and greatly re-

duces the depth at which one is compelled to work.

Another means of reducing the manipulations to a minimum can be found in the systematic examination of the gall bladder, the cystic, the hepatic and the common duct as soon as the abdomen has been opened, in order to determine the exact condition before the plan of treatment is chosen.

This can best be done by introducing one finger of the right hand into the foramen of Winslow and pressing upon the ducts anteriorly with another finger. If the adhesions are too firm or too general one can often accomplish the same end by introducing the index finger of the left hand above the ducts and pressing against it with the thumb from below. Occasionally one can palpate the ducts more satisfactorily by turning ones back toward the patient and introducing the index finger of the right hand above the common duct and pressing against it with the thumb from below.

Having once determined the exact pathological condition present the remaining steps can be clearly planned with a view of reducing the traumatism to a minimum.

If the gall bladder is large and distended with bile and gall stones, with the ducts free, the gall bladder is thoroughly isolated with gauze pads, then the bile is aspirated through a trocar two or three millimeters in diameter, then the puncture is enlarged, a gauze strand is packed loosely into the cavity of the gall bladder and withdrawn several times until all of the bile has been evacuated, then the stones are removed with a dull curette. The cavity of the gall bladder is then explored with the finger and if found empty it is loosely packed with gauze and sutured with catgut to the upper angle of the wound. The sutures are placed one or two centimeters from the edge of the opening according to the size of the gall bladder and are passed down to, but not through, the mucous membrane. They grasp the peritoneum and the transversalis fascia in the abdominal wound. After four to six days this gauze is withdrawn and a rubber drainage tube is inserted which remains in place until the bile appears perfectly normal, usually from two to four weeks, when the fistula is permitted to heal spontaneously.

If the gall bladder contains stones, but is strongly contracted, the same operation may be performed, unless the cystic duct is obliterated, in which case it is usually better to grasp the remnant of the cystic duct with two pair of hemostatic forceps, cut between these and dissect the gall bladder together with its stones from its attachment to the liver, being careful, however, not to cut into the latter organ. The lower forceps compress the cystic artery which makes the operation practically bloodless.

The portion caught in the lower forceps may be ligated or the forceps may be left in place and permitted to protrude through the upper angle of the wound for forty-eight hours, when they may be removed. If these forceps are left on, however, they should be of a pattern which is sufficiently elastic not to cause pressure necrosis, and still firm enough to control hemorrhage.

The same operation may be done if the cystic duct is not completely closed, but in which the gall bladder seems sufficiently impaired to make its removal desirable, but in these cases the cystic artery should be caught in hemostatic forceps and the cystic duct should not be ligated. A rubber drainage tube should be introduced through the cystic duct into the common duct and held in place by means of a fine catgut suture. The tube should fill the lumen of the cystic duct as accurately as possible and a strand of gauze should be loosely sutured to the duct just below this as a further protection.

The same operation is indicated in case of an impaction of a gall stone in the cystic duct with indications of ulceration, making a future obstruction due to cicatricial contraction probable.

My own experience bears out the observation of many other surgeons that one never regrets having drained in these cases, while one often regrets having neglected this precaution.

Occasionally one encounters a contracted gall bladder with a partial or a complete obstruction of the cystic duct in which there are so many adhesions that an excision of the

gall bladder seems an unusually hazardous undertaking. If a simple cholecystostomy is made in these cases it is likely that a fistula will persist which will discharge mucous secreted by the lining of the gall bladder, or this fistula will close from time to time only to reopen after the gall bladder has been distended with mucous. Each time the opening is preceded by a period of suffering.

In this class of cases Mayo's operation of enucleating the mucous lining of the gall bladder can usually be carried out without much difficulty. This operation is performed in the following manner. A circular incision is made around the gall bladder about two to four centimeters from its upper end down to, but not through, the mucous membrane. The bleeding vessels are caught and ligated and then the mucous membrane is dissected out bluntly and when the cystic duct is reached it is cut off. Any bleeding vessel is caught and ligated and a drainage tube is inserted into the funnel thus formed and fastened in place with a fine catgut suture. A gauze drain is applied around this and also fastened in place with a fine catgut suture. The gauze is removed in a week or ten days and the drain is left in place so long as there is free drainage.

In many of the cases in which there are strong adhesions to the shrunken gall bladder the latter contains a small amount of pus and it is consequently wise to tampon away the surrounding structures carefully in these cases in order to prevent infection.

In case the obstruction to the cystic duct is due to the impaction of a conical gall stone in the neck of the gall bladder it is sometimes possible to lift this stone between two fingers and to permit a portion of the mucous and pus to escape into the duodenum through the cystic duct before inserting a trocar and removing this fluid from the distended gall bladder. There is no harm in this and it is safer to puncture the gall bladder after the tension has been reduced by evacuating some of the fluid in this manner.

After the pus and mucous and the gall stones have been removed from the gall bladder in these cases there is usually a free flow of bile which indicates that the cystic duct is again patulous.

A few years ago there was a tendency toward making a cholecystectomy in all of these cases, but it seems as though the results are better with cholecystostomy, unless the conditions are such as to make the occlusion of the cystic duct likely.

CHOLEDOCHOTOMY.

If the gall stones are in the common duct a choledochotomy is indicated. In a few cases I have succeeded in forcing the stones back into the gall bladder, but this is not usually safe. Crushing stones in the common duct is equally unsafe. It is best to place the patient in Mayo-Robson's position, apply a fine catgut suture to the common duct above and below the point at which the stone can be felt, to fix the gauze and the drainage tube later on, then insert one or two fingers behind the common duct, press it forward and make a longitudinal incision sufficiently long to insert a finger for exploration.

The stones can then all be removed by means of a blunt curette and then a rubber drain can be inserted into the common duct and held in place by one of the fine catgut sutures previously applied. A strand of gauze is placed about the lower and anterior surface of the common duct and permitted to protrude from the upper angle of the wound together with the drainage tube.

These precautions make the removal of stones from the common, the cystic or the hepatic ducts almost as safe as the removal of stones from the gall bladder, provided the operation is not performed during the time of an acute attack of gall stone colic which always means an acute inflammatory condition.

Fortunately it is almost never necessary to operate during the time of an acute exacerbation because this will almost invariably subside within a short time, provided the element of rest is introduced which was mentioned in the earlier part of this paper.

In a large number of cases of acute gall stone colic in this series of cases upon which this paper is based I have had an opportunity to test the usefulness of rest in overcoming

the pain and in causing the acute inflammatory condition to subside. This is accomplished by performing gastric lavage with hot water until all of the remnants of food and mucous have been irrigated out of the stomach and then prohibiting the introduction of anything by mouth until the attack has completely subsided.

In many cases in which large doses of morphia given hypodermically failed to relieve the pain, the latter subsided in from one to two hours by the use of this simple method. This was true in impaction of gall stones in the gall bladder, in the cystic duct or in the common duct. In three cases of perforation of the gall bladder the infected area was completely separated from the general peritoneum by the omentum and the patients who entered the hospital in a desperate condition recovered after the circumscribed abscess was opened and drained and the gall stones removed.

In one case of impaction of an enormous gall stone in the gall bladder with acute pancreatitis with diffuse fat necrosis the pain did not subside. The abdomen was opened, the gall stone removed and the gall bladder drained. The patient died ten days later from hemorrhage from the mucous lining of the duodeum.

In a number of cases of gangrene of the mucous lining of the gall bladder the pain subsided at once upon instituting this treatment. In one case the pain had subsided completely when a small amount of orange juice was given, contrary to orders, which caused a renewal of most violent pain, which again subsided at once upon making gastric lavage and prohibiting food. Four days later the patient was normal, but had received nothing by mouth. In order to prevent a recurrence of the attack she was operated and a stone was found impacted in the neck of the gall bladder whose mucous membrane was gangrenous and at a point one centimeter in diameter at the upper end of the gall bladder there was a perforation closed with omentum.

It is of course impossible to state whether this perforation took place during the first attack or during the recurrence caused by the ingestion of the orange juice, but the adhesions were so recent in character that they must have occurred during the present attack and still the simple use of rest had resulted in an immediate relief of pain which had not subsided with the use of large doses of morphia given hypodermically.

Time will not permit the discussion of complications nor the analysis of the cases upon which this paper was based. The classification and statistics of these cases have already been published in part and will be more fully published in a more complete discussion of the subject at a future time. The object of the present paper is to direct attention to the importance of early diagnosis before serious complications have occurred and to the treatment of acute gall stone colic by the application of complete rest which can be accomplished by the use of gastric lavage and the prohibition of food.

GALL STONES—PAST, PRESENT AND FUTURE.*

BY J. L. WIGGINS, EAST ST. LOUIS, ILL.

Past. The shadows of the past so overlap the present in the consideration of "lithiasis" that it is difficult to draw a line of demarcation.

From a text book published in 1886, at that time an authority upon the subject, I note the following conclusions: "The diagnosis is not definite unless calculi can be demonstrated in the faecal washings although repeated attacks of biliary colic followed by cholemia would indicate that a stone had been arrested in transit, or that the inflammation to the mucous lining was so extensive as to interfere with the free passage of bile." In speaking of other conditions resulting from the pathological involvement he states: "The presence of tumefaction and redness indicate the direction which the pus is taking toward the surface, which, with the formation of cutaneous biliary fistulae is the much desired outcome; otherwise fever continues, gastro-intestinal

*Read at the 54th Annual Meeting, May 17, 1904.

derangement occurs, a typhoid state ensues, followed eventually by death."

With a diagnosis in such an unsatisfactory condition and with a prognosis based upon a lucky chance of cutaneous biliary fistulae or gall bladder intestine adhesions and perforation, it is not surprising that the treatment was equally unsatisfactory consisting of "Tonics, Quinine, Morphine poultices and as a last resort Cholesystotomy."

As a matter of interest we will state that this article is from the pen of a gentleman who during the past year has shown the degree to which he has been divorced from his former erroneous ideas, by an early diagnosis of a simple cholecystitis and a courageous insistance upon an immediate operation for its relief, accepting the responsibility of both diagnosis and result.

There could be no greater contrast between what was and what is to be, than the evolution here pictured.

Diagnosis and treatment take precedence in the view point of the past on account of the prominent position accorded them at this period of our investigation.

Its etiology gave full scope to the maze of transcendentalism—habits, water, diet, vocation, heredity, hydatids, tumors, injuries, and especially humoral excesses or deficiencies, any suggestion from any source was considered of sufficient interest to receive at least honorable mention.

The real pathology of lithiasis was an unexplored field; its "effect" was usually ascribed as "cause" and "cause" as revealed, gave little hope of relief.

Present. Were we to mark the point when the past became separated from the present, we would doubtless designate the time when all causation factors were eliminated except that of infection. This may seem a broad statement, yet for all practical purposes it is true. It might be noted that the knowledge was not utilized until years after its correctness was proved. The present advanced understanding of choletithiasis recognizes that there must necessarily exist at some previous period a primary infection; that accompanying, or following this infection there is an impediment to the normal flow of bile; whether this condition resulted from the involvement of the membrane of gall bladder and duct, or was invited by malposition, pressure, or derangement of nerve supply, are matters having but little bearing upon its treatment. Sufficient time has elapsed, and sufficient number of cases treated, from which reasonable deductions can be drawn as to the correctness of these conclusions:

1st. That the gall bladder is a dispensable organ.

2d. That infection always precedes calculi formation.

3d. That pathological conditions are the result, and not the cause of lithiasis.

4th. That a recognition of these truths, in connection with the fact that a free discharge of bile aborts infection, and that many of the pathological sequelae are relieved naturally, compels attention to this, that the only logical method of treatment is early interference, if early—safe, simple, satisfactory—if later, more radical, more difficult, less satisfactory.

The facts herein stated are common property. One would suppose they were generally understood and widely applied. It requires but a cursory investigation to convince the inquirer that such is not the case. A current medical writer, expressing the fear that our pathological museums, unless supplied quickly, will miss a wealth of material illustrative of the ravages of choletithiasis, need not cause immediate alarm.

Seed sown on virgin soil takes deep root

The pathognomonic idea is as yet too firmly ingrafted upon the average medical mind to be easily uprooted—in addition, the natural channels of egress are still courted and will continue to be courted most assiduously, whilst humoral correctives and calculi solvents, find votaries in the ranks of the most intelligent.

The task presented to the pioneers in this line is not unlike that which confronted them in the campaign of education on the subject of "Appendicitis;" even here, with one decade of passive and one of active aggressive work, the lesson is but half learned and illy understood. If a disease which has

attracted such universal attention, which invokes primarily an organ in a fairly constant location, easy of access, having few conflicting reflexes, and so few neighboring organs which cannot be eliminated by exclusion, is involved in such doubt and mystery, as to almost exclude a primary operation, we need not be surprised if a disease, less acute, but none the less fatal, located in regions difficult of access, closely associated with neighboring organs with reflexes which overlap and are varied and misleading, be not recognized by the general practitioner, previous to extensive pathological changes, or if recognized will not impress with force sufficient to occasion a courageous insistance upon early operative measures.

Future. As many of the opinions of the past concerning the etiology, pathology, diagnosis and treatment of lithiasis have undergone a complete revolution, so many of the opinions now held sacred will in the near future be proven false.

Probably among the first to succumb will be that almost universal idea, constantly reiterated that stones may form and fill the gall bladder occupying this viscus for years without there being a suggestion of their existence.

Probably as time advances we shall have to admit, that, owing to our own incapacity their language was misinterpreted. We were misled by the echo.

Many will remember the answer to a query propounded to the Mayos as to the source of supply of their numerous gall stone cases.

During the past few years others have been finding them, and finding them in cases ordinarily classed as neurotics. Even this great advance should not satisfy. The question occurs, if a condition now so plain was so lately obscure, is it not possible to go farther, diagnose the initial infection and provide means to prevent calculi formation?

It is not entirely satisfactory to plead "early operation" after the calculi have caused riot. Doubtless the infection, no matter how mild, through absorption affects the entire economy.

Dare we predict complete recovery from its remote effects?

The treatment of the future will be completely removed from the domain of medicine; this much is assured by our present experience.

Among the indirect benefits will be a simplification of our nomenclature; this is no slight relief to the general practitioner.

Early recognition will require drainage only.

No one symptom will be depended on as an infallible indication of the nature and extent of the lesions, whether it be the Mayo, Robsons or others which have been advocated as pathognomonic.

A condition which indicates infection or calculi of the gall bladder and ducts, will indicate the necessity of incision for the purpose of exploration.

Upon this one point hangs the progress of the future.

There is little danger of the criticism "Surgery gone mad," such as was justly applied to the former sex despoilers in ovarian surgery.

We now recognize that nearly 80% of the stomach troubles originate in Appendicitis, Gall-Bladder, Kidneys or some form of Hernias. Frequently it is impossible to separate the tangled skein of nerve reflexes. Those who are reasonably expert will not care to await postmortems for enlightenment, when by a small incision devoid of danger relief can be assured.

CHOLECYSTITIS.*

BY M. L. HARRIS, M. D., CHICAGO.

To modern aggressive surgery is due the credit for most of our present knowledge of Cholecystitis. True, gall stones and inflammation of the gall bladder have been known so long as the records of medicine have been kept, but a correct clinial history has only been written since the surgeon has opened up this region to inspection and palpation.

It was then found that many supposed diseases of other organs particularly the

*Read at the 54th Annual Meeting, May 17, 1904.

stomach, which had been classed and treated from time immemorial as medical affections were really due to inflammation of the gall bladder, and attendant sequelae.

Cholecystitis and gall stones commonly co-exist, but this is by no means an invariable rule.

Attention was first directed to the frequency and importance of chronic cholecystitis independently of gall stones by surgeons operating under the impression that gall stones were present.

On opening the gall bladder, no stones were found, but unmistakable evidences of chronic inflammatory changes were disclosed to which the symptoms complained of were due. These facts lead to a more careful study of this class of cases, with the result that we are now able to correctly interpret numerous symptoms which previously had been erroneously ascribed to a variety of causes.

There is quite an analogy between cholecystitis and appendicitis not only as regards the manner in which our knowledge of the two conditions has progressed, but also clinically.

We may thus meet with the most acute cases perforating into the peritoneal cavity with the production of a general peritonitis, or with chronic cases extending over a period of years, and manifesting themselves by irregular periodical exacerbations of symptoms.

While it is not always possible to draw a sharp line clinically between cases of cholecystitis without the presence of gall stones and those with gall stones, still it is the desire of the author at this time to emphasize the importance of the inflammatory changes and symptoms *per se* rather than the secondary or mechanical effects of the stones.

Gall stones play in these cases a double role; they are the result of antecedent inflammation and may perpetuate a chronic inflammation or excite acute exacerbations by the mechanical irritation which their presence produces.

The inflammatory changes are probably always due to the presence of microbes. These may reach the gall bladder through the circulation or from the intestinal canal. While the latter route is considered the more common by most observers, still the former should not be under estimated.

It is remarkable how quickly micro-organisms injected into the jugular vein can be recovered from the bile, showing that they are eliminated from the blood current at once by the liver. This accounts for the frequency with which we find cholecystitis associated with the acute infectious diseases, such as pneumonia, typhoid fever, etc.

The microbes most frequently found in the gall bladder are the colon bacillus, the typhoid bacillus, the ordinary pus cocci and the pneumo-coccus. In addition to the essential factor, the microbes, certain predisposing factors are of importance. These latter act by favoring stagnation of the bile in the gall bladder, thus affording an opportunity for the bacteria to lodge and develop, for while formerly it was thought that the bile possessed germicidal properties, later experiments have shown this to be practically nil under ordinary circumstances.

The length of time which certain microorganisms may persist and live in the gall bladder after this organ has once been infected is truly remarkable. For instance, the typhoid bacillus has been recovered from the gall bladder in chronic cholecystitis with gall stones five, ten, fifteen and even eighteen years after an attack of typhoid fever.

The author recently obtained from a chronically inflamed gall bladder with gall stones, a growth which gave all the characteristic culture reactions of the typhoid bacillus and it was the only microbe found.

The patient, a man, 45 years of age, gave a history of having had typhoid fever 18 years previously.

While the typhoid bacillus usually gives rise to chronic cholecystitis following the fever, it may rarely be the cause of an acute inflammation as the initial symptom.

In November 1902, the author saw in consultation, a man aged about 36 years who a few days before had been taken with an acute pain in the region of the gall bladder extending to the epigastrium. There were chills, vomiting and a temperature reaching to

10[illegible]5 F. Examination disclosed just below the tip of the right ninth rib a distinct mass which was very sensitive and tender and over which the skin was quite red and pitted slightly on pressure. The patient was removed to the hospital with a view to an operation. A blood examination was then made and showed not a leucocytosis as had been expected, but a leucopenia, namely, only 5,600 whites. This immediately suggested the possibility of typhoid and operation was deferred. The local symptoms all subsided. Widal's reaction was positive and the patient passed through an ordinary attack of typhoid fever.

The diagnosis of acute cholecystitis when the characteristic symptoms such as those just mentioned are present is not difficult, but at times, particularly when perforation has taken place it may be very difficult to differentiate the condition from an acute appendicitis or a perforation of a gastric or duodenal ulcer or even an acute intestinal obstruction as numerous cases in the literature demonstrate.

The chronic cases, however, owing to their much greater frequency and owing to the fact that they are often misinterpreted, are the most important.

These cases often run along for years with a diagnosis of stomach trouble or dyspepsia with irregular attacks of acute gastritis, bilious attacks, or gastralgia, etc.

These patients have attacks of pain in the epigastric region and just below the right costal arch, sometimes radiating toward the umbilicus or into the back.

The attacks may be light or so severe as scarcely to be distinguished from actual biliary colic due to the passage of gall stones. The pain may last from a few minutes to a few hours or a day or two, and is frequently relieved by vomiting. During the attack, there is always marked tenderness in the region of the gall bladder, and even in the intervals there is usually a tender spot about midway between the tip of the ninth rib, and the umbilicus.

Jaundice is not a feature of the condition except when there is a co-existing involvement of the bile ducts. During the interval between attacks these patients usually are quite well but have to be constantly dieting lest some indiscretion precipitate an attack.

As illustrating this variety of the disease the following case may be mentioned. J. M. age 31, married, car conductor. At 15 years of age he says he was sick for about three months with what was called typhoid fever, otherwise has had good health. Present trouble began about six years ago with attacks of pain in the abdomen. The onset of these attacks was characterized by severe cramp-like pain under the right costal arch. At first the pain would be relieved by lying flat on the abdomen but later they were only relieved by emptying the stomach. Relief usually came within a few minutes after vomiting.

In 1897 and '98 he had six attacks. In 1899 and 1900 the attacks increased in severity but decreased in frequency. During 1901 and '02 there were ten attacks and he was able to foretell each attack by a feeling of numbness in the right upper portion of the abdomen with nausea and constipation. He had never been jaundiced.

On entering the hospital Feb. 1, 1903, an examination revealed nothing abnormal about the different organs. There was tenderness over the gall bladder, but no tumor could be felt. The urine was normal. Blood examination showed, Serum slightly bile stained.

Red blood cells	4.900.000
White blood cells	9.900
Poly morpho-nuclears	75%
Small lymphocytes	18%
Large lymphocytes	6%
Eosinophiles	1%
Hemoglobin	100°
Index	92

A diagnosis of cholecystitis was made and operation advised. On Feb. 3, 1903, the gall bladder was drained in the usual way. It was found filled with thick tenacious bile very dark in color, no gall stones. Inoculations were made on agar, gelatine, and bouillon.

A pure culture of a short bacillus with rounded ends was obtained which the various

culture tests showed was in all probability the para-colon bacillus.

At the end of two weeks inoculations showed the bile to be steril. Drainage was therefore removed and the wound allowed to close. The patient made a good recovery and has remained free from his attacks since.

The author has operated on a number of similar cases in which no gall stones were present. Even when stones are present the symptoms complained of are usually due to the cholecystitis rather than to the gall stones, for stones which do not migrate may remain quiescently in the gall bladder for years without giving rise to any trouble whatever.

In stone cases we may find all degrees of inflammation from a mild type with only occasional attacks to an acute attack with perforation.

The most characteristic features of the chronic cases are tenderness at the point above mentioned, pain and gastric disturbances.

The stomach as a rule is a very tolerant organ and will stand much abuse without rebelling. In a person, therefore, who is troubled at irregular intervals with attacks of gastric disturbances often without apparent cause one should always suspect some extra-gastric trouble affecting this organ reflexly or mechanically, and one will most often find this in affections of the gall tracts.

In the milder cases of chronic cholecystitis without stones, we find simply a catarrhal inflammation of the mucosa. This membrane is thickened, more vascular and bleeds somewhat freely when incised.

The gall bladder is filled usually with a thick, somewhat tenacious, very dark, often cloudy or streaky bile. Sometimes the bile has apparently separated into two portions, a rather thin serous part and the thicker part just mentioned.

If the inflammation is more acute a seropurulent fluid may be found, while in the severest cases ulceration or sloughing of the mucosa or even of the entire thickness of the wall of the gall bladder may occur. The same conditions may also be found associated with gall stones, but in these cases there is a greater tendency to pericystitis with adhesions to surrounding viscera, and to the formation of greatly thickened small, contracted gall bladders.

Concerning the treatment of cholecystitis we are confronted here with almost the same propositions that we meet with in appendicitis. Many of the acute cases, or acute exacerbations of chronic cases recover quickly, by simply emptying the stomach, keeping this organ at absolute rest, and starving the patient for a few days. On the other hand the severe cases with tendency to sloughing, perforation, or extension of infection through the walls of the gall bladder demand immediate operation.

The chronic cases which constitute by far the majority are usually easily and permanently relieved by cholecystostomy or drainage of the gall bladder with the removal, of course, of the stones should some be found present. Drainage should be maintained until the bile is found upon examination to be steril. This usually requires from one to two weeks when the fistula may be allowed to close.

Should the gall bladder be found so altered by inflammatory changes that a restitution to the normal condition does not appear likely then cholecystectomy should be performed.

It is not the intention to discuss the operative technic of these procedures, but merely to mention the treatment and operation of choice in these cases. Should an operation for any reason be contra-indicated or undesirable, then a line of treatment which may be briefly referred to as the Carlsbad treatment should be instituted.

Discussion on the paper of Dr. Harris.

Dr. E. Mammen, of Bloomington: Mr. Chairman:—I am very glad to hear this very clear exposition by Dr. Harris of a subject that is of very great and general interest. It has been my fortune to observe the evolution of the diagnosis of cholecystitis all the way from stomach trouble, neuralgia of the stomach, acute dyspepsia, acute indigestion, and what-not, until now it has come to be recognized that this class of diseases usually does not mean trouble with the stomach, but with the gall-bladder. I happened to have had a case recently, which was the youngest patient upon whom I have operated for this disease. She was

a girl, seventeen years of age, and had had pain in that region for some years, which had been diagnosed as stomach trouble by other physicians, and for which miscellaneous remedies had been given. But she was no better, and at my suggestion submitted to an operation. The operation which I would resort to in such cases would be the method by the Murphy button, or in cases in which there is no suppuration I have found that method to be most desirable in its ultimate outcome. In this case I found beautiful adhesions of the peritoneum, which surrounded the gall-bladder and the adjacent peritoneum; also adhesions of the mesentery and the duodenum, and as I came down upon the seat of the disease these two separated, peeled off easily and readily. The gall-bladder was then opened and the bile so well described by Dr. Harris, of a thick, dark color, was found. The gall-bladder was very much distended. A drainage operation was performed, and we had the satisfaction of seeing the patient completely recover, without the slightest soreness or tenderness remaining.

Dr. Emil Ries, of Chicago: I think the paper of Dr. Harris is a timely one, because it lays so much greater stress on inflammation of the gall-bladder than on the presence of gall-stones themselves. It is a paper which will be helpful to all practitioners who do gall-bladder surgery once in a while, and who make a diagnosis of gall-stones. Such a procedure as drainage of the gall-bladder is a successful and useful operation. Cholecystitis, especially the chronic form, leads to a great many changes in the gall-bladder and surrounding tissue, although Dr. Harris did not enumerate them in his short paper, and if you will allow me, I will mention one or two observations that I have made in cases of chronic cholecystitis.

There is, first of all, perforation of the gall-bladder and involvement of the neighboring organs, organs that are not normally attached to the gall-bladder, but which by adhesions may become so, as the stomach, duodenum, small intestine, etc.

A few days ago I demonstrated before the Chicago Medical Society three gall-bladders I had removed, in which there was a fistula. In one there was a fistula between the gall-bladder and the stomach. In one a fistula between the gall-bladder and duodenum. In a third there was a communication between the gall-bladder, and an intraperitoneal abscess shut off by adhesions, containing gall-stones. There were gall-stones in the abscess and gall-stones inside the gall-bladder. The perforation was the consequence of an ulcerative process in the gall-bladder—cholecystitis, although limited in degree.

How often cholecystitis leads to such perforations is not certain at this time. How many of the firm adhesions which we find around the gall-bladder; how many liver abscesses are connected with cholecystitis, we do not know. The conditions favoring such perforations are due to chronic inflammation of the gall-bladder, which produces false diverticula of the gall-bladder.

If you will permit me to make a diagrammatic drawing, I can show that in a minute. If this is the bladder wall (indicating), and this the mucous membrane of the gall bladder, and these the subserous and serous coats, we find in chronic cholecystitis the glands going through the muscular coat and appearing under the serous coat sometimes. In one case I followed a perforation of the gall bladder to a point where a diverticulum came down into the wall of the gall-bladder. The wall of the gall bladder was closed again by hyaline scar tissue, and in the midst of this scar tissue there were chips of gall stones, and outside of that the walls of the abscess contained chips of gall stones. The direct connection between the diverticulum and perforation was easily shown under the microscope.

In the presence of cholecystitis, cholecystectomy is undoubtedly the best operation to perform. I do not wish to go into the technique of it, because Dr. Harris did not mention it, and will only say that cholecystectomy at the present time is so much the better operation, and gives such excellent results, that I am convinced it will become more and more generally used.

The operation of peeling out the mucous membrane, as recommended by Dr. Mayo, of Rochester, I believe is not practiced very much by himself at the present time, and these diverticula furnish good evidence against the usefulness of that operation. The mucous membrane cannot be peeled out alone, and when Dr. Mayo speaks of this he means that he peels out the mucous membrane and muscular coat. If he does that, there are still the ends of the diverticula left in the wall, which possibly may give rise to the formation of cysts. That is one of the great objections to the operation of peeling out the mucous membrane, which may appear easier than the cholecystectomy.

Dr. A. K. VanHorne, of Jerseyville. I was very much interested in Dr. Harris' paper, and I had intended to be at the afternoon meeting yesterday, but I had a patient who was apparently troubled with cholecystitis on Sunday, and Sunday night, and he was not well enough for me to leave him until yesterday.

We are not all of us competent to perform this operation (cholecystectomy), and yet we have patients who are in great pain and distress from this disease. Is there any remedy that we can give these patients which will relieve them? I think there is. The patient to whom I refer has had three attacks in the last four or five months. I gave him a tablespoonful of olive oil every two hours, which greatly relieved him. Of course, if it is absolutely necessary for him to undergo an operation, I believe it should be done, but so long as I can give relief by using olive oil, which is a simple medicine, or food, if I may call it so, and pleasant to take, I do not think I would urge operation.

I simply desire to mention the olive oil treatment in connection with this paper.

Dr. Harris (closing the discussion): Dr. Mammen said that his operation of choice in these cases was the use of the Murphy button. If I am to understand by that statement that he performs cholecystenterostomy, then I surely disagree with him, because cholecystenteros-

tomy should never be performed for a simple cholecystitis. He would simply open a route for infection from the intestines, and constantly reinfect the gall bladder and gall ducts. Cholecystenterostomy has but one place in surgery, and that is where there is impassable and irremovable obstruction of the common duct. It has no other place in surgery.

Dr. Ries mentioned complications, saying that they were numerous. That is true. The gall bladder is probably the source of more conditions in the upper abdomen requiring surgical intervention than any other organ.

Let me say a word or two in regard to the medical treatment in these cases, when operation is not deemed advisable at the time. The best treatment is to empty the stomach and let it alone, and the pain will soon subside.

The olive oil treatment is very old, and I only mention it to call attention to a very amusing incident that occurred in connection with its use. I had a patient who had taken the olive oil treatment for a long time, and she was constantly passing, as she thought, a large number of gall stones daily, with the discharges from the bowels. She collected these apparent gall-stones and brought them to the office in a large bottle, illustrating the wonderful virtue of olive oil treatment. But when we examined the supposed gall-stones carefully, we found that they were all masses of soap. (Laughter.)

A CASE OF INTERNAL HERNIA INTO THE RETRO-COLIC FOSSA.*

BY ALBERT EDWARD HALSTEAD, M. D.,
OF CHICAGO.

Professor of Surgery, Chicago Policlinic; Attending Surgeon to the Cook County and St. Luke's Hospitals.

The retro-colic or retro-caecal fossae are situated behind the colon and caecum, and are dependent for their existence upon the secondary coalescence, sometimes absent of the colon, caecum and mesentery to the posterior abdominal wall. They are destroyed by removal of these organs, being visible only when these parts are *in situ*.

These fossae, usually two in number, the external and internal retro-colic, are not constant. Berry found in twenty cases that the internal alone was present in 15 per cent.; both in 10 per cent. and the external alone in 5 per cent.

When both fossae are present, their formation depends upon three folds of peritoneum, these from right to left are:

(1) The external parieto-colic fold, or the outer layer of the ascending meso-colon.

(2) Internal parieto-colic fold, or the inner leaf of the ascending meso-colon.

(3) Mesenterico-parietal fold, an abdominal attachment of the enteric mesentery internal to the meso-colon.

The external retro-colic fossa, relatively small and of slight pathologic importance is found between the outer and inner layers of the ascending meso-colon, and depends for its existence upon the failure of fusion of the two leaves of the colonic mesentery. If union is complete, the fossa does not exist. The boundaries of this fossa are: In front; the posterior wall of the ascending colon, and at times the caecum; the posterior longitudinal muscular band is found between the layers of the meso-colon, which bound the fossa laterally. Behind; the posterior abdominal wall.

Laterally, we have the internal and external parieto-colic folds.

The more constant and pathologically more important internal fossa is bounded in front, by the ascending colon and caecum; behind, the posterior abdominal wall; internal parieto-colic fold. Its existence depends upon the presence of the mesenterico-parietal fold, which has been termed by Tuffier, the inferior ligament of the caecum. This fold as described by Jennesco, is of triangular shape, its superior or mesenteric border inserted into the posterior layer of the mesentery, the ileo-caecal angle and the border of the caecum for a variable distance. Its parietal border is adherent to the iliac fossa at the level of the sacro-iliac synchondrosis. Its free border is directed forwards sometimes to the left and is concave. Its summit is lost above and behind upon the mesentery. In case of non-attachment of this fold to the posterior abdominal wall the internal fossa cannot exist. The typical internal retro-colic fossa is very distinct and depends as stated upon the presence of the mesenterico-parietal fold, and the colonic mesentery, being situated between these folds. It lies behind the angle of junction of the ileum and colon. It is of variable size.

*Read at the 54th Annual Meeting, May 17, 1904.

sometimes being sufficient to admit three fingers.

It is generally conceded by most investigators that hernia into the retro-colic fossa is rare. Treitz offers as an explanation of the rarity of this condition, (1) that the orifice of the sac looks downward and therefore the intrusion of the gut is generally prohibited by reason of gravity. (2) That the orifice of the sac is non-vascular and not resistant.

Jennesco, differs with Treitz, maintaining that herniae are not rare. Moynihan agrees with Treitz concerning the rarity of hernia into the retro-colic fossa, having found only two cases that he considered unquestionably that of retro-colic herniae. These two cases were described by Rieux. Jennesco records eleven cases including the two cases of Rieux, that Moynihan concedes as being examples of true retro-colic hernia.

The case of Wagner, which Jennesco depicts as a typical case, Moynihan regards as a hernia of the fossa iliaco-subfacialis.

A third case, that of Funkenstein reported in the Deutsche Zeitschrift fur Chirurgie, Bd. 64, 1892, may be considered as a hernia into the internal retro-colic fossa. Funkenstein, in reviewing the reported cases, concludes as Moynihan, that these hernia are extremely rare, but believes that in addition to the two cases of Rieux, the case of Engel (Wien. Med. Wochensch, 1857) and that of Aschoff, (Berl. Klinik, 1896) should be classed as retro-colic hernia. Accepting his statement we have only five cases on record. To this list we believe may be added the following case:

On September 17, 1902, I was called in consultation with Dr. Warner of this city to see K. Kowalski, who had been ill for five days. He gave the following history: The patient, a large fleshy man of 40, by occupation, a night-watchman, had always enjoyed perfect health until about five years ago. Since that time he has had three or four attacks similar to the present one, but not so severe. These would begin suddenly with severe abdominal pain, nausea and at times vomiting. Usually the pain would cease suddenly, when after expelling a large quantity of flatus he would experience no further trouble. One of these attacks one and a half years ago was more severe than the others, lasting two days, and associated with great abdominal distention and tenderness. After this attack he was greatly prostrated and was compelled to quit work for a week.

The present attack began four days ago, the initial symptom being similar to those of the preceding attacks. On returning from work in the morning, he, as was his habit, went to the closet to evacuate his bowels. While straining at stool he felt something slip in the lower right part of the abdomen. This was immediately followed by the feeling of nausea. He was able to be about most of the day, but could not sleep from the pain and nausea from which he suffered. Toward evening he secured by enema, a fairly large bowel movement, but did not pass any gas. From this time unceasing effort was made to move the bowels both by cathartics and enemata without any result. The vomiting continued with increasing abdominal pain and excessive distention. During the last twenty-four hours he has had a temperature ranging from 101 to 103 degrees with profuse perspiration and rapid (120-130) weak pulse. On examination of the abdomen, it was found greatly distended, the walls extremely rigid, with tenderness most marked on the right side. The contour of the abdomen was semi-spherical, the distention being greatest around the umbilicus and less marked in the flanks. No free fluid in the cavity could be demonstrated. On palpation there was excessive tenderness over the ileo-caecal region.

From the history and the examination, it would appear that the patient was suffering from mechanical ileus. The most probable cause being a strangulation from a band resulting from a previous appendicular inflammation.

The patient was immediately sent to the Baptist hospital. On reaching there his temperature was recorded at 103°; his pulse, 156, and his leucocytic count at 26,000.

After the usual preparation the abdomen was opened. Believing that we had to do with an obstruction resulting from a previous appendicitis, the incision was made over the

border of the right rectus muscle, the center corresponding to the anterior superior iliac spine. As the abdominal wall was very thick and the distention excessive, an unusually long incision was employed. On opening the abdomen, the small intestine, over-distended, immediately protruded. This was replaced and controlled by sponges. On inspection of the ileo-appendicular region, the caecum and ascending colon were found collapsed and compressed against the anterior abdominal wall. For further inspection the caecum and colon were lifted out of the abdominal cavity. The terminal portion of the ileum could be seen to pass down and back behind the upturned and collapsed colon. During the latter part of this manipulation, the collapsed terminal portion of the ileum suddenly became distended, and after apparently rotating in itself, appeared in the abdominal incision. The caecum and a part of the ascending colon which were outside of the abdomen, became enormously distended with gas, which, at the moment when the loop of ileum slipped from underneath, gurgled freely through the ileo-caecal valve. In order to determine if possible the cause of the obstruction, the appendix and ileo-caecal region was carefully explored. The appendix was normal. On examination of the retro-colic space a pocket admitting freely three fingers and fully three and one-half inches in length, was found behind the caecum, colon and ileo-caecal junction. It was evidently in this fossa which corresponded to the internal retro-colic fossa that the strangulation of the small intestine had occurred. No serious damage to the strangulated loop was evident. During the exploration of the retro-caecal region considerable tension was made upon the caecum and colon which were drawn up into the wound. The dislocation of this portion of the intestine together with the enormous tension exerted upon this previously collapsed gut from the gas passing from the over-distended small gut, caused the caecum to rupture. The tear began on mucous surface and extended along the longitudinal band for a distance of about two and one-half inches. When this occurred, enormous quantities of gas and liquid faeces escaped. The patient's condition became very bad, so that to shorten the already prolonged operation, an artificial anus was established at the point of rupture. The patient quickly recovered. The artificial anus was closed in about two months. Since that time, he has enjoyed good health.

IDIOPATHIC DILATATION OF THE ESOPHAGUS.*

BY JAMES B. HERRICK, M. D., CHICAGO.

By idiopathic dilatation of the esophagus is meant dilatation with no ascertainable organic cause. The esophagus dilates usually throughout a large portion of its extent, sometimes two-thirds, or three-quarters being dilated and in a spindle-shaped or cylindrical manner.

With regard to the pathological anatomy of the condition, I wish to say little or nothing, leaving that phase of the subject to Dr. Sippy, who, by means of a specimen, which he has been fortunate enough to obtain, will be able to tell us much more than I can by any didactic description.

What causes this dilatation of the esophagus is more or less of an hypothesis. Lossen, who has written recently on this subject, has grouped the pathogenesis of the condition under five heads.

1. There may be primary spasm of the cardia, with secondary dilatation of the esophagus above the spasm, hypertrophy of musculature, etc., much as we find in the myocardium in case of obstruction at the cardiac valves, or in the stomach, where we have dilatation of that organ following obstruction at the pylorus. This view of primary spasm of the cardia is held by Mikulicz and others.

2. Primarily, we may have a predisposition to muscular weakness, a condition of atony allowing stagnation of food to occur, next dilatation, and then through irritation, spasm of the cardia. Rosenheim makes this contention, and says he cannot see clearly

*Demonstration of a case before the Chicago Medical Society, May 3, 1904.

why, if primary spasm of the cardia is the cause of the dilatation, we do not more frequently get dilatation with organic strictures.

3. A third view is advanced by Kraus. Through defective vagus innervation, there has been found in experiments on lower animals, contraction of the cardia, with relaxation of the circular fibers of the esophagus. Kraus believes the same thing may occur in man and supports his view by a specimen from a human being, which he found in the Vienna Muscum, in which degenerative changes in the vagus were distinctly marked.

4. A fourth view is that of primary esophagitis, with secondary reflex spasm of the cardia, and later dilatation.

5. Congenitally, there is at times a pouch just above the cardia, spoken of sometimes as the Vormagen, or cardiac antrum, which, by the accumulation of food or constant pressure of food, dilates, and is thus the basis for the dilatation.

Perhaps no one of these theories explains the condition. It is possible that several of these causes might obtain in a given case to produce the condition; but most of the cases certainly seem to have definite spasm of the cardia. Clinically, spasm of the cardia is, so far as we can judge from the history, one of the earliest manifestations of dilatation of the esophagus.

Symptomatically, we have a condition which is well illustrated by the history of this sixteen year old boy, whom I present. In September, 1903, he began to have difficulty in swallowing solid food which he washed down with the aid of water. He often went through certain movements of the body and arms, took deep breaths, etc., to force the food down. Later, as a second symptom, there was regurgitation of the food that had stagnated above the cardia. When the esophageal pouch was full this would occur. He frequently left the table in order to "vomit" as he thought. Later came the symptom of emaciation, with loss of strength. This is the typical history in almost all of these cases: First, food sticking in the esophagus; later, the patient is unable to swallow even with the aid of liquids, or any movement, and then come the regurgitation and the constitutional symptoms. Occasionally a cough has been described, but that has not been present in the case of this boy. When a patient comes to us with such a history, we naturally from the symptoms suspect trouble in the esophagus. I need not say that a careful examination of other parts of the body should first be made, to exclude aneurysm or growths that might press upon the esophagus, etc.

Now in the case of this boy as soon as we found the patient normal in every other respect, we began to investigate the esophagus, and the first thing we found, in introducing the stomach tube, was an obstruction when we reached the cardia. Also, after a meal, at about twelve or thirteen inches from the incisor teeth we are able to get food, and this food, if examined, as gotten by the stomach tube, or as the patient regurgitates it, shows characteristics that are noteworthy. It is apt to be alkaline or neutral. It shows maceration, but not true digestion, and we do not find gastric ferments in it. We do not find free hydrochloric acid. There has been found lactic acid, and not infrequently sugar, due to the action of the saliva on the starch of the food. In this case we have examined many a time the food that has been regurgitated, and that which we have obtained by the passage of the stomach tube, and have never found any free hydrochloric acid. Next, we passed the tube down to the cardia, and it met with resistance. In some cases persistent pressure even with a flexible tube will cause the spasm of the cardia to relax, and the tube passes into the stomach. In the case of this boy the ordinary stomach tube failed to pass. By using a stiffer tube, or, rather, bougie, I was able by gentle pressure to pass the tube through into the stomach. As it was being withdrawn there was distinctly felt the grip of the cardia on it.

Many mechanical experiments have been tried on these patients, the objects of which is to show: (1) That the esophagus is larger than it should be; (2) that we have not only this pouch, but the pouch of the stomach below; (3) that we have separating them a constricting band of muscular fiber. These things are proven by many ingenious devices.

In this boy's case we have put water into the pouch, and withdrawn it at a certain level say 12 inches. Then, we have passed the tube farther down, withdrawn water from that level, and so on down to the cardia. We can measure the amount the dilatation will hold, about 5 ounces. We have passed a stomach tube into the stomach, after dilating with the bougie, and have passed methylene blue solution into the stomach; have withdrawn the tube, rinsed it off with water, and then introduced some other colored fluid or clear water above the cardia. This latter does not pass down into the stomach because we can recover clear water by the stomach tube, and by passing the tube farther i. e. into the stomach we can recover the methylene blue solution.

There is one experiment described in the literature which is sometimes known by name as Rumpel's test. It is really the test to try to tell whether or not we are dealing with a dilatation or with a diverticulum. Rumpel passes one tube (let us call it a short tube) into what he believes may be a diverticulum. This tube has a little window or opening near its lower end. He introduces a second long tube down into the stomach. There is an opening at the bottom of the tube, and also a window higher up above the cardia as I indicate to you on the blackboard. He introduces a colored fluid into this tube, which we will call the shorter one, and the fluid collects in the diverticulum to the extent of half an ounce or ounce, let us say, but does not pass through the longer tube into the stomach. He puts in more, and when the diverticulum is full the fluid overflows and passes through the opening in the long tube into the stomach, and can be recovered from that point. If he is dealing with uniform dilatation of the esophagus, the fluid at once escapes from the short tube into the cavity of the esophagus and passes through the window in the long tube into the stomach, and can be recovered from that point.

The boy has had some crackers two hours ago and you see that he is regurgitating. We will make a test with the dimethylamidoazo benzol. (Testing.) You see there is no reaction for free Hcl. Several other confirmatory tests might be mentioned. Occasionally by percussion and auscultation, when the pouch is full, changes in the note can be detected. The use of the X-Ray should not be forgotten. I have a skiagraph of this case. By swallowing five or six ounces of oatmeal gruel, in which was suspended bismuth—oatmeal gruel or potato broth being used merely because bismuth will not settle to the bottom so rapidly as in water—there is shown very distinctly the shadow of the dilatation. The use of the esophagoscope should not be forgotten. This was passed a day or two ago by Dr. Sippy and myself. I am going to ask Dr. Sippy to speak of the use of the esophagoscope in these cases, as I believe he has some interesting points to give us in connection with this topic.

The prognosis in these cases has a considerable element of gravity. In some of them the spasm is never very tight, or only for the time-being tight. In some cases you may be able to pass the stomach tube with ease, yet, when the patient takes certain kinds of food, as in one case reported where sweet food was taken, there will be spasm. In one case I have seen the spasm excited only by cold food. Where the spasm is tight, starvation is threatening. It is a very serious affair when the esophagus is not only dilated, but when it is lengthened out, and may have curled in such a manner that the cardia is away off to one side, so that it is difficult to get a stomach tube to pass through. In these cases, then, the prognosis is serious, and one can understand that gastrostomy has occasionally to be performed.

In this boy's case the treatment has been largely dilatation of the cardia by bougies, with the subsequent passage of the stomach tube and feeding through this tube. But we have found that by giving him solid food rather than liquid, which in his case seems to excite spasm of the cardia more readily than solid food, and by letting him take food immediately after the passage of the bougie, he is able to swallow at times. Yesterday he ate a hearty meal. Last night he ate supper. This morning he lost his breakfast. He has gained ten pounds in twenty days. We have now washed out the pouch, and it remains to

be seen how successful we shall be in getting into the stomach. It takes considerable patience at times to introduce the stomach tube in these cases. In order to save time I shall use a somewhat stiffer tube than usual. I find that I meet with obstruction in introducing the stomach tube, at the level of the cardia, but by a little patience have now succeeded in passing it into the stomach. Some stomach contents come out through the tube and you notice that the test for free Hcl.. is positive, very different from what it was with the contents of the dilatation. I will put some methylene blue solution into his stomach, withdraw the tube and then put clear water into the esophagus above the cardia. Now waiting for a few minutes I withdraw the fluid from the two situations separately. That from the esophagus, while stained a little with the blue because of haste and a faulty technique is much lighter in color that that from the stomach showing that the two fluids are in separate cavities. In making the demonstration in my college clinic and taking more time to it the proof was complete.

CYSTIC TUMORS OF THE OVARY.*

BY GEO. W. NEWTON, M. D., CHICAGO.

A case of a ninety pound multilocular ovarian cyst that had been incorrectly diagnosed seven years ago by a Chicago specialist and therefore wrongly treated up to the time she had an operation in February last suggested to me the wisdom of reviewing the subject of ovarian cysts.

Cysts develop from the cortical part of the ovary, or the oöphoron and from the medullary part or the paroöphoron and from the parovarium.

They may be classified as: Follicular, Glandular, Dermoid and Proliferating papillary.

Follicular cysts develop from the Graafian follicles and corpora lutea. Their growth is due to the thickening and hardening of the tunica albuginea that has taken place as a result of chronic congestion and inflammation. The follicles being unable to rupture a cyst is thus started. This form of cyst may be multilocular or unilocular and rarely grows larger than a small orange. The wall of a cyst of the corpora lutea is usually thick and light yellow in color. The follicular cyst does not stop menstruation, ovulation or pregnancy. One or both ovaries may be affected. They occur as a rule during the period of ovarian activity.

Glandular cysts are multilocular ovarian cysts adenomas. They develop from the glandular elements of the ovary. In a small per centage of cases both ovaries may be affected but they are usually unilateral. The ovary is destroyed. When these cysts first begin to develop they are multilocular but later the walls separating the cysts may be absorbed and a unilocular cyst results. There is practically no limit to their size. The wall of the sack is firm, being composed of connective tissue, elastic and unstriped muscular fibres. The contents of the sack varies in consistency from a thin fluid to a jelly like substance, the color of the fluid may be yellow, coffee colored, green or black. Pfannensteil claims papillomatous growths are sometimes found within these glandular cysts. These tumors are as a rule intra-peritoneal, their pedicle is composed of broad ligament, fallopian tube and ovarian ligament.

Dermoid cysts of the ovary are characterized by their sack and contents. The wall of the sack is thick, the external surface is brown or gray in color, the internal is lined with a tissue which in appearance and structure resembles skin. Their contents are so well known it seems hardly necessary to mention them. They are usually unilocular, of comparatively small size, often adherent and they not infrequently inflame and suppurate. Dermoids occur at any age and are of slow growth. They may undergo sarcomatous degeneration.

The proliferating papillary cysts start from the medullary portion or hilum of the ovary. They are supposed to originate from the remains of the Wolffian body. They frequently grow between the layers of the broad ligament and thus become extra-peritoneal. Upon the inner surface of the cyst wall warty growths are found which may be small

*Read at the 54th Annual Meeting, May 17, 1904.

in size or they may form cauliflower like masses. The wall of this form of cyst is apt to rupture, if this occurs these vegetations invade the peritoneum and ascites occurs. The fluid in the sack is thin and watery in character differing very much from the fluid found in the glandular variety. They are as a rule unilocular and frequently bilateral. Rupture of the sack should be prevented if possible when removing it for fear of infecting the peritoneum. Cases have been reported where there was a recurrence of the papillomatous growths in the abdominal incision.

Cysts of the parovarium are not connected with the ovary. They may be simple or papillomatous. Never reach a large size, are mostly unilocular and grow between the layers of the broad ligament. Fluid contents watery.

Etiology. Many theories as to the cause of ovarian tumors have been advanced, among them are: The retention of embryonic products, traumatism, sexual excess, inflammation, in regard to this I will quote Dr. Mary Dixon Jones, Journal of Obstetrics and Diseases of Women and Children, October, 1900. She says: 1. Cyst formations are the outcome of disease. 2. No. ovarian cyst, small or large, exists without a previous oöphoritis. 3. Other things being equal the more intense the inflammation the more rapid is the growth of the cyst. 4. There can be no cyst without a reduction of the tissues to protoplasm. 5. This reduction to protoplasm is what we call inflammation. 6. Cysts are always the result of inflammation and are always accompanied by more or less pain, distress and disturbance of the general health.

The theory most commonly advanced to explain the origin of dermoids is an inclusion of the epiblast but Johnston suggests that they are due to a faulty development of the ovum which contains the germ of all tissues, hence dermoids arise from the mesoblast, hypoblast as well as from the epiblast.

The pedicle. When a cyst starts from the hilum of the ovary it grows between the layers of the broad ligament and is sessile, when it starts from the parenchyma of the ovary it is intra-peritoneal and pedunculated. The pedicle includes the broad ligament Fallopian tube and ovarian ligament. It may be long or short. Sometimes the pedicle will rupture or break off, in such cases the tumors get their nourishment from the adhesions which have taken place between the wall of the tumor and the omentum and intestines, this was the condition that existed in a large tumor I removed in February. Such adhesions complicate and increase the dangers of removing these cysts very materially.

Ovarian cysts are subject to inflammation and suppuration, twisting of their pedicle and rupture of the sack, when any of the above changes occur symptoms arise which indicate the complication that has occurred. The smaller cysts particularly dermoids are prone to inflammation and suppuration. The infection may come from the Fallopian tube vermiform appendix, intestine and the bladder. The old practice of tapping cysts was frequently followed by suppuration. As a result of inflammation the cysts will be slightly or firmly adherent and the patient will complain of increased tenderness and pain. The symptoms of suppuration are fever, dry tongue, weak and rapid pulse, loss of appetite, loss of flesh. She does not necessarily suffer pain. Pus may make its escape through an adherent bladder, bowel or through the vagina or it may rupture into the peritoneal cavity, in such a case death follows rapidly a general septic peritonitis.

The changes in a cyst whose pedicle is twisted and the symptoms produced depend upon the degree of torsion and the rapidity with which the torsion has taken place. When the twisting takes place gradually no special symptoms arise but when the torsion is sudden the patient complains of pain, sensitiveness on pressure and nausea. The pulse will be rapid and there may be temperature. Hemorrhage into the tumor may take place and thrombosis and necrosis may occur.

The cause of rotation of the tumor is not known although pregnancy is said to favor it. Rupture of the sack is another accident that may happen to an ovarian cyst, it may be due to slight external pressure, as from an examination or to a sudden jolt or jar or

from pressure inside the tumor. Certainly rupture is more apt to take place if the integrity of the wall of the tumor has been destroyed or weakened by fatty degeneration or inflammation or by papillomatous growths. The symptoms arising from rupture depends upon the character of the fluid contained in the cyst—it may be absorbed by the peritoneum and excreted by the kidneys with no bad symptoms or there may be diarrhoea and vomiting. The rent in the sack being gradually closed up by adhesions the sack gradually refills. If the fluid is septic, general peritonitis develops. If the tumor is a papilloma, the general peritoneum may be infected with vegetations and ascites develops.

Symptoms of ovarian cysts. The size, location, presence or absence of adhesions and the accidents that the tumors are subject to determine the symptoms of ovarian cysts. Small, intra-peritoneal movable tumors cause few or no symptoms. The patients attention may first be attracted to the growth by the fact that she is growing larger. Even after her attention has been attracted to the tumor by her increasing size, it may not produce much discomfort. As the cyst grows larger pressure symptoms increase and the large multilocular cysts cause difficulty in breathing, in walking and interfere with the heart's action. Intraligamentous growths by pressing on the bladder, rectum and ureters may cause much suffering before they have reached a very large size. Dermoids and glandular cysts may cause ascites, the proliferating papillary cyst frequently does so. All forms of ovarian cysts are subject to malignant degeneration, the papillomatous the most frequently and the glandular the least. Such degeneration judging from the cases reported are rare. The menstrual function is little affected by these growths, excepting in the case of bilateral papillary cystadenomas when it is increased. In other cases the tendency is for the amount of the flow to grow gradually less. Dr. H. D. Beyea cites in the Amer. Jour. of Obstet. and Dis. of Women and Children, February, 1900, a case of multilocularpseudomucinous cyst adenoma that was associated with pronounced symptoms of glycosuria and he reports other cases that would suggest the tumors to be because of the sugar in the urine for the sugar disappeared after the cysts were removed. Albuminuria may or may not be present.

Diagnosis. When the cyst is in the pelvis the diagnosis is made by bimanual examination either with or without an anesthetic. To avoid making an error in diagnosis an anesthetic should be used. With the patient anesthetized the abdominal wall will be thoroughly relaxed, then the entire pelvic contents can be easily palpated. If the growths are intra-peritoneal, they are quite movable, they may lie either front, back or to the side of the uterus. Pulling the uterus down does not move the cyst and the cyst can be moved without moving the uterus. The shape of cysts is round, their surface may be uneven and lobulated. Their presence is not preceded by a history of acute inflammation, the growth is constant but slow. We distinguished a cyst from a solid tumor of the ovary by the hardness of the latter—avoid mistaking a distended bladder for a cyst by invariably drawing the urine before beginning the examination. When the ovarian tumor has arisen from the pelvis into the abdominal cavity the field of differential diagnosis will be greatly increased. Pregnancy has caused many mistakes in diagnosis but if one remembers the purple color of the vagina, the shortened and soft cervix and the foetal heart sounds it would seem as though many such mistakes were due to carelessness. Without attempting to mention all the abdominal tumors ovarian cysts have to be differentiated from, I shall give the salient points of their diagnosis.

1. There is a gradual asymmetrical enlargement of the abdomen.

2. With the patient in the supine position percussion gives localized dullness with tympany in the flanks.

3. Change of position affects location of dullness only slightly and does not alter shape of abdomen.

4. Menstruation as a rule unchanged.

5. Uterus not enlarged.

6. General health does not give evidence of serious disease of liver, kidneys or heart.

7. Fluctuation distinct, level does not change with change of position.

Many pathological conditions have been mistaken for ovarian cysts but the use of an anesthetic and repeated examinations will generally enable one to avoid making unpleasant mistakes. The diagnosis is rendered more difficult if pregnancy coexist with the tumor or if the abdominal walls be very thick. These pictures will show you the case I spoke of in the beginning of my paper. It illustrates well the size a multilocular cyst may attain. Seven years ago this patient was told she had an intramural fibroid. She took intra-uterine treatments of electricity twice a week for twenty months. Two years ago when her girth was forty-one inches she became pregnant. When I operated her girth was fifty-six inches and the tumor weighed ninety pounds. She recovered nicely from the operation.

Treatment. The only treatment applicable to glandular, dermoids and proliferating papillary cysts is removal. Just what is the best treatment of an ovary that has follicular cysts or has undergone the so called cystic degeneration is still an unsettled question. No doubt the ills and discomforts of many thousands of women have been increased rather than diminished by removing ovaries because they contained a few small cysts. It is also true that women whose ovaries have been resected have had to undergo a second operation, because after partial removal of their ovaries cystomata or cirrhosis of the ovary developed or they suffered severely from menstrual disturbances. However, there is a growing tendency I believe to leave healthy ovarian tissue whenever possible although such practice will be followed in a certain percentage of cases with the necessity of a second operation. Coe in the New York Med. Jour., October, 1903, states that in over five per cent of his conservative operations he had to reopen the abdomen to effect a cure. Granting that this represents the experience of most operators preserving the menstrual function of ninety-five per cent warrants the practice of taking some chance of a second operation and no doubt as the diagnostic ability and technic of operators improves this percentage will be lowered.

To quote Coe again, he says, "the chance of a recurrence of the original pathological condition vary according to the character of the adhesions and exudates found at the first operation, and the extent of the denuded surfaces left within the pelvis."

Patients can aid somewhat in preventing a return of their trouble by stopping practices which cause congestion and inflammation of the sexual organs.

A CASE OF MASTOID OPERATION EMBRACING SOME UNUSUAL FEATURES.*

BY H. W. CHAPMAN, M. D., WHITE HALL, ILL.

Mr. F. G., aged 19 years, White Hall, Ill., telephone line man. Father died of pulmonary tuberculosis, one brother has suppurative middle ear trouble, mother living and in good health. At the age of five years had scarlet fever complicated with suppurative otitis media right ear. There has been a continuous discharge of pus from this ear up to the time of his coming to me, May 12, 1902. Was referred to me by his attending physician with the remark that "unless something could be done, he was going to die." Three months previously pain and swelling occurred in right mastoid region, and both have continued uninterruptedly together with fever, loss of appetite and sleep.

Is pale, anemic and much reduced in flesh. Situated behind the right ear is a large fluctuating tumor, tender on pressure, extending upwards over parietal bone and backwards five centimeters. Pus pouring from meatus. An incision was at once made into this tumor and about 70 cc. of thick foul smelling pus was evacuated, a drainage tube inserted and large antiseptic dressing applied. Patient was given tonics and generous diet. The ear was kept clean and dressed antiseptically each day. He soon began to show improvement. On May 29th was taken to sanitarium and under chloroform an incision was made in the usual site

*Read at the 54th Annual Meeting, May 17, 1904.

uation, extending from the tip of the mastoid, running close along behind the auricle to a point 1 or 2 cm. above the latter, dividing all tissues including the periosteum. Hemorrhage was quite free. A sinus was discovered in upper portion of mastoid the opening of which was enlarged with chisel and mallet, the carious bone scooped out with a bone curette. One of the unusual features was the high situation of the antrum, which was 1½ cm. back of and 2 cm. above the external meatus and 3½ cm. deep. A large cavity was cleared out in mastoid requiring a strip of gauze 70 odd cm. long and more than one cm. in width to fill. The wound was closed excepting sufficient for drainage, and a large antiseptic dressing applied.

Patient bore the anesthetic well, recovered from it promptly and left the sanitarium the next day, receiving the remainder of his treatment at the office. The cavity in bone was kept packed with gauze fourteen days, when a rubber drainage tube was substituted. The wound and middle ear were irrigated daily with antiseptic solutions and the dressings kept scrupulously clean.

Wound healed entire by primary intention excepting the portion kept open by drainage tube.

Patient improved daily and in one month from time of operation resumed his work of climbing telephone poles. In September following the drainage tube was removed and its opening promptly healed over. There was still some discharge from the meatus. Everything went well until July 1st, 1903, when there was some pain behind the ear and a little pouting of the skin covering the former site of the drainage tube. This was incised and allowed the escape of a little pus, the drainage tube was again inserted and worn continuously until October 24th, when it was finally removed. At this time it was discovered that the sinus was lined with epithelium from the integument down to its bottom.

The sinus is 7 mm. in diameter and 3.5 cm. in depth, running inwards, slightly upwards and forward. Its external opening is situated 1.5 cm. back of, and 2 cm. above the external auditory meatus. Water thrown with syringe into auditory canal issues from this opening in a full stream spurting out 7-8 cm. from head.

Water thrown into the sinus in same manner issues from the external auditory meatus in a similar stream.

This permanent sinus and the high situation of the antrum, viz. 2 cm. above the auditory canal are the unusual features of the case.

The ear now remains dry and has given no trouble for a long time.

Patient has not missed a day's work since latter part of June, 1902. Is well in every way. P. A. A. D. 11. 5/160, A. S. 35/160 inches.

New Incorporations.

The Secretary of State at Springfield yesterday licensed the following corporations:

The Shields Croup Liniment company, Minier; capital, $15,000; manufacturing medicines; incorporators, S. M. McLaughlin, C. H. Buehrig, R. C. Cripfield.

Union Hospital association, Paris, Ill.; conduct hospital; incorporators, Frank O'Hair, R. G. Sutherland, H. L. Jones.

The Ekolene Chemical company, Chicago; capital, $30,000; to manufacture medicines; incorporators, Sanford F. Giles, Albert D. Hughes, C. L. Redfield.

Alumnae Association of Chicago Hospital Training School for Nurses, Chicago; benevolent; incorporators, Edith Briggs McWhorter, Martha I. Giltner, Caroline C. Small.

Monahan Antiseptic company, Chicago; capital, $10,000; manufacturing soaps, drugs, and antiseptics; incorporators, John J. Rooney, Joseph Grossman, Rowland T. Rofers.

Giles Remedy company, Chicago; capital, $30,000; manufacturing proprietary medicines; incorporators, D. S. Giles, Charles W. Blatchford, R. W. Closter.

Dr. Boyd Medical Office, Chicago; capital, $2,500; conduct a sanitarium; incorporators, Dr. J. Boyd, Josiah Gratty, William N. Jarvis.

Lincoln—Dr. J. H. Beidler died Friday at the home of his daughter, Mrs. Frank Newton. Bronchitis and heart failure were the cause of his death. The deceased was 75 years old and had been in failing health for some time. For many years he was one of the leading physicians of Lincoln.

The Illinois Medical Journal.

The Official Organ of the State Medical Society.

JUNE, 1904.

NEXT ANNUAL SESSION, ROCK ISLAND, MAY 16, 17, 18, 1905.

OFFICERS:

PRESIDENT—W. E. QUINE, Chicago.
FIRST VICE PRESIDENT—H. C. MITCHELL, Carbondale.
SECOND VICE PRESIDENT, J. F. PERCY, Galesburg.
SECRETARY—EDMUND W. WEIS, Ottawa.
TREASURER—EVERETT J. BROWN, Decatur.
EDITOR—GEORGE N. KREIDER, Springfield.
ADVERTISING MANAGER—MR. LOUIS O. EDDY, Marshall Field Building, Chicago.

SECTION ONE.

Practice of Medicine, Medical Specialties, Materia Medica, Therapeutics, Etiology, Pathology, Hygiene, State Medicine and Medical Jurisprudence.

M. S. Marcy ..... Chairman
Peoria.
Fred Zapffe, Chicago.

SECTION TWO.

Surgery, Surgical Specialties, and Obstetrics.

Geo. L. Eyster.....Chairman
Rock Island.
W. H. Wilder ..... Secretary
103 State st., Chicago.

Committee on Prevention of Tuberculosis.

J. W. Pettit, Ottawa.
C. L. Mix, Chicago.
J. F. Percy, Galesburg.

Committee on Public Policy and Legislation.

Frank Billings, Chicago.
Carl E. Black, Jacksonville.
J. W. Pettit, Ottawa.
The Pres. and Sec'y, Ex-Officio.

Committee on Scientific Work.

M. S. Marcy, Peoria.
Geo. L. Eyster, Rock Island.
The Pres. and Sec'y, Ex-Officio.

The figures before the names of the Councilors refer to the Councilor Districts.

The Council.

(1) J. H. Stealy, Freeport.
(2) W. O. Ensign, Rutland.
(3) M. L. Harris, Chicago.
(4) O. B. Will, Peoria.
(5) J. Whitefield Smith, Bloomington.
(6) C. E. Black, Jacksonville.
(7) E. E. Fyke, Centralia.
(8) W. K. Newcomb, Champaign.
(9) J. T. McAnally, Carbondale.

THE BLOOMINGTON MEETING.

The 54th annual meeting at Bloomington proved to be all that had been anticipated. There was a large attendance and great interest shown. This was particularly true on the part of the citizens of Bloomington as was shown by the crowd that listened to the addresses the first evening and by the inspiring and enthusiastic audience which listened to and applauded the Symposium on Tuberculosis.

* * * * *

The President's address was heard with unbounded satisfaction. No words were spared in denouncing those members of the profession who had proven themselves so forgetful of the power which created them. At the same time the Society was admonished of the lack of unity which permitted the outrageous treatment which had been accorded it during the past two years. The address should be read and pondered by every member of the Society.

* * * * *

The symposium on tuberculosis was undoubtedly the event of the meeting. Chairman Pettit had so thoroughly planned for this event that nothing was lacking to make the occasion a great success. If nothing else had been done at the meeting this symposium was enough to make it a notable event. The matter too is not to be permitted to rest with the reading of the papers. The untiring Pettit has interested the entire lay press of the State in the warfare against disease and besides has already arranged to start a camp in the neighborhood of his home city to give a practical demonstration of the lessons taught in the papers. We hope that

al his plans will materialize and that another year will see Illinois a leader among the states which are organizing to exterminate the bacillus of consumption.

* * * * *

But the symposium on Tuberculosis was not the only good feature of the scientific program for both sections were replete with papers carefully prepared and fully discussed. Large and appreciative audiences heard them.

* * * * *

The House of Delegates was for the first time in full control of the business of the Society working under the new constitution. A great deal of business was accomplished but it was at the expense of keeping the delegates away from the Sections for a greater part of the time. We hope that it will soon be found practicable to hold the first session of the House the day before the annual meeting so that the bulk of the business may be completed before the members of the Society have assembled. The delegates would then be free to mingle with the membership during the meeting so as to learn by personal contact the needs of the whole profession in the State. Sessions of an hour each day during the meeting would then probably suffice to complete the work. Undoubtedly some changes will be necessary in the present constitution as the Society grows and experience teaches but for the present it is a good working guide.

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Much more might profitably be said concerning the meeting but, owing to sickness in his family, the editor was able to attend the meeting only for a short time. The entertainment offered by the profession and citizens must not be forgotten because it was cordial and bountiful.

POLITICIANS AND STATE INSTITUTIONS.

In our last issue we discussed a certain political pamphlet which had been sent to the members of the medical profession and left the subject open for further comment. We stated that the present executive had rendered himself unpopular with a majority of all the learned professions and recent events have proven the statement to be true. It was shown early in the contest that his renomination was impossible and the only question to be settled was which one of his opponents should be given the honor. There are certain lessons to be drawn from the downfall of Mr. Yates which should be stated at this time in order to avert, if possible, a similar blunder by the next Governor. Three times now have the people signified their disapproval of the prostitution of the State Institutions to political purposes and we firmly believe that present conditions can not and will not longer survive. The people are fully aroused to the enormity of the crime and the medical profession can do much, by agitation among the people to take the State Institutions out of politics, now and forever. Politicians know only the law first enunciated by Jackson, "to the victor belong the spoils." When this is applied to medical affairs it usually results in the appointment of those medical men who can bring the most delegates into a convention to perpetuate the rule of the boss. Ability and efficiency, humanity and progress are lost to view and the sufferers are the helpless sick who are unable to speak for themselves.

One of the chief reasons for the unpopularity of Mr. Yates was his utter disregard of the promises he had made concerning the conduct of the State Charitable Institutions. Many voters who had doubts as to his ability to fill creditably the Gubernatorial chair, supported him because of the good promises concerning the State Institutions made dur-

ing his campaign for election. His first acts shattered the hopes that had been raised. The appointment of Mr. Tanner as Secretary of the State Board of Public Charities was a notice that the same political methods which had been in vogue for eight years were to be continued for another quadrennium. This act with others as reprehensible drove from that Board two of the most valuable members it had ever possessed. When they protested, in their letters of resignation, against this policy one of them Dr. Hirsch was attacked by the chief executive in a manner which did him little credit and the other was only saved by her sex and character from a similar attack. The justice of the statements made by Miss Lathrop in her letter of resignation has been recently proven in a remarkable way. The editor of this Journal admitted to its editorial columns certain non-partisan and praiseworthy articles on the needs of the State Institutions of Illinois. In a letter printed in the April Journal criticising these articles, Mr. Tanner shows that even three years incumbency of his office has failed to educate him up to the point of appreciating what should be the proper plan for conducting a State Charitable Institution. A few of the letters we have received from our members in answer to Mr. Tanner were printed in the May Journal. They show little sympathy for his contentions. Those not printed are more forcible in their denunciation of his language.

The responsibility for all the mismanagement and want of improvement in our State Charitable Institutions must finally lie at the door of the Governor and probably this more than anything else has resulted in the unpopularity of Mr. Yates with the medical profession. They know too well the justness of the criticisms.

Just as we go to press it is announced that Governor Yates has removed from office Dr. C. S. Blackman physician, Asylum for Insane Criminals at Chester and Dr. A. M. Lee, physician, Southern Illinois Penitentiary, Chester. The reason given for these removals is not that these gentlemen had failed to perform the duties of the positions held by them but that they had not actively labored for the renomination of the person who appointed them to the offices they held. Whether these gentlemen had been efficient officers or not concerns us not now. It is the principle at stake which we must condemn in unmeasured terms.

In behalf of the organized profession of the State, we demand that such abuse of the appointing power must cease with the present administration. It is too much to hope that anything can be done until the present executive has been deposed. He has shown himself incapable of learning and the condemnation of his actions apparent by the result of the convention seems only to render him more active in his maladministration.

When all the political parties have published their platforms and all the candidates have stated their attitude in regard to the State Charitable Institutions we expect to take up this subject again.

TUBERCULOSIS EDITION.

It is at present the plan to make the July issue of the Journal a special tuberculosis edition, containing all the papers read on that subject at the annual meeting and the excellent tables and diagrams exhibited by the State Board of Health. This will be sent to every medical man in the State.

Correspondence.

CHICAGO, MILWAUKEE & ST. PAUL RAILWAY CO.
GENERAL AUDITING DEPARTMENT.
FREIGHT AUDITOR'S OFFICE.

Chicago, Ill., May 27, 1904.

Dr. Geo. Kreider, Springfield, Ill.

Dear Doctor: Having been informed that a reprint of the papers read before the Illinois Medical Society could be procured through you after they are printed in the Medical Journal would ask if I could have a copy of same. I believe that the Medical Society is doing great good in fighting and spreading knowledge of tuberculosis since laymen as well as the medical fraternity are alarmed at the inroads this disease is making. Among the fellow clerks of this office, 3 have been told by physicians that they are affected with tuberculosis, within the past 8 months. If there is any printed matter to be had which states how incipient consumption can be observed by a person, I would thank you for forwarding same to me.

Very truly yours,
M. Scharlach.
192 E. Fullerton Ave.

TENT COLONY AT OTTAWA FOR THE TREATMENT OF TUBERCULOSIS.

Ottawa, Ill., May 26, 1904.

To the Editor: It is apprehended that the greatest obstacle we will encounter in securing an appropriation for state Sanatoria will be the difficulty in convincing the public in general, and legislators in particular, that tuberculosis can be cured in this climate. The belief that certain attributes of the atmosphere such as rarity, dryness, equable temperature, etc., etc., have become so firmly established that it need not be surprising if we find it difficult to convert the skeptical to a contrary belief.

In anticipation of this obstacle, it is the opinion of those who have given the subject most attention, that an object lesson which shall demonstrate the improvement or cure of a few cases in this climate, will have greater weight than an argument based upon what has been done for a multitude of cases in other states. With this end in view I have been induced to start a tent colony at Ottawa.

The site selected is ideal in every respect.

The equipment will be first class, combining all the comforts, and many of the luxuries of the home, with all the essentials necessary for treatment, such as pure air, good water and food, drainage, transportation, etc., etc.

In order to make the demonstration most effective in influencing the next legislature it is desirable to commence at once. The camp will be ready for patients by June 15th.

The success of the experiment will be fully reported from time to time in the columns of the Journal. Physicians, the friends of patients, and others interested will be welcomed as visitors.

Inasmuch as my motives are not selfish I ask the moral support of the profession in making the enterprise a success.

J. W. Pettit.

State Items.

Dr. A. C. Foster of Bement has removed to Decatur.

Dr. Ware Stevens of Pawpaw, has been bound over to the grand jury under a charge of complicity in the death of a young lady, of that village, who died there recently.

Dr. P. R. Langdon of Kankakee who is wanted on a charge of murder for the death of Mrs. Chas. Carr, who died April 16, was arrested at Queenstown, Ireland, May 5, and will be brought back for trial.

Dr. Augusta A. Linderborg of 431 Center st., Chicago, was recently married to Ibrahim Kheiralla the founder and head of the Babist Central Church of the Manifestation. It is said the couple have removed to St. Louis to organize a church there.

The Michigan State Medical Society at its recent meeting appointed a committee to act with the State Bar association in its effort to secure state legislation for more desirable expert medical testimony in courts. The legislature also will be asked to establish a state sanitarium for the treatment of early stages of tuberculosis; to make a law to compel the registration of births as well as deaths; to pass a measure to prohibit the manufacture and sale

of toy pistols; and a law to limit the times when suits may be started for malpractice to one year, instead of three, as at present, after alleged injury occurs, and that suits may not be started after the patient's death.

CHANGES MADE BY STATE BOARD OF CHARITIES.

Statistics Regarding Epileptics in State as Returned to Board by Physicians—Cook County Has One-quarter.

The quarter bulletin issued by the State Board of Public Charities for the quarter ending March 31, 1904, was put out from the printing office recently and distributed. Besides giving the usual information regarding the condition of affairs at the various state charitable institutions, it has a map giving the reapportionment of the counties among the state hospitals for the insane and some statistics regarding epileptics in the state.

To the northern hospital for the insane at Elgin is assigned 1,210 inmates, of which Cook county is allowed 811; to the esatern hospital at Kankakee, 2,280 patients, of which Cook county is allowed 1,517; to the central hospital at Jacksonville, 1,290 patients; to the southern hospital at Anna 1,075 patients, and to the western hospital at Watertown, 1,065 patients.

The quotas assigned each county for the central hospital for the insane at Jacksonville is as follows:

Adams, 96; Calhoun, 13; Christian, 47; Fulton, 66; Hancock, 46; Logan, 41; Macoupin, 61; Mason, 25; McLean, 98; Montgomery, 44; Moultrie, 22; Pike, 45; Schuyler, 23; Shelby, 46; Woodford, 31; Brown, 17; Cass, 25; DeWitt, 27; Greene, 34; Jersey, 22; Macon, 65; Madison, 93; McDonough, 41; Menard, 21; Morgan, 50; Piatt, 25; Sangamon, 103; Scott, 15; Tazewell, 48.

Statistics on Epileptics.

Regarding the statistics as to epileptics the report says:

"In November, 1903, we sent a communication to every physician in the state, asking each to show on return blank, all cases of epilepsy of which he had knowledge together with the age and sex of each case.

"The response was not as general as we hoped for, although the data obtained was quite satisfactory and probably included seventy-five per cent or more of the epileptics of the state.

"Replies were received from 1,029 physicians, of which 760 were from the state at large, and 269 from Cook county. Of the total number, 197 reported no cases, and most of these physicians said there were no cases in their vicinity.

"We hope to have our efforts supplemented by a similar effort this year on the part of the State Board of Health to secure complete data on this subject.

"The counties in which the largest number of cases were reported are: Cook, 522; Fulton, 41; Will, 38; Vermilion, 38; La Salle, 36; Madison, 35; Peoria, 35; McLean, 33; Pike, 30; Adams, 28; Kankakee, 28; Marion, 27; Jo Daviess, 27; Lake, 25; Tazewell, 25; Ogle, 25. These are exclusive of the cases in the county almshouses.

"There are 651 cases in the state institutions, 341 in the county almshouses, and 2,010 reported by physicians, making 3,002 cases of which we have positive information."

Regarding sex, the epileptics were distributed as follows:

Males—Outside Cook county, 910; in Cook county, 319; total, 1,229.

Females—Outside Cook county, 580; in Cook county, 201; total, 781.

Marriages and Deaths.

MARRIAGES.

Guy Dowdle, M. D., and Miss Winifred Warner, daughter of Hon. Vespasian Warner. Member of Congress and candidate for Governor, were married at Clinton, June 2.

L. W. Howe of Leonore to Miss Laurel Quinn, May 11th.

Chas. H. Phifer and Miss Eleanor L. Grover, both of Chicago, May 4th.

W. O. Sheller of Big Rock and Miss Emma Frost of Chicago, May 13th.

DEATHS.

Carey, T. L., Chicago, May 2, aged 60.

Cooper, Chas. J., Penfield, May 21, aged 37. Dr. Cooper died of septic infection after 12 days of suffering. He was a graduate in 1902 of the Eclectic Medical College at Cincinnati and was a member of the Champaign County Medical Society and the State Society.

Crawford, C. H., Chicago, April 28, aged 47.
Evans, W. S., Marion, April 26, aged 95.
Freeman, J. A., Wellington, May 8, aged 76.

Livingood, Michael T., Rossville, April 6, aged 79.

Murphy, H. T., Chicago, April 16, aged 37.
Nifong, L. M., Modesto, April 30, aged 32.
Perryman, J. L., Belleville, April 22, aged 74.
Salter, E. W., Stronghurst, April 23, aged 34.
Stout, A. N., Ava, aged 44.
Van Ackeren, Fred, Elgin, April 26, aged 40.

Wilson, Isaac T., Quincy, April 24, aged 79. Dr. Wilson was the oldest physician in Quincy and was a graduate of New York University in 1851.

Isham, Ralph N., Chicago, May 28, aged 73. Dr. Isham was one of the pioneer surgeons of the northwest for many years in charge of the Marine Hospital and consulting surgeon of the Cook County Presbyterian and Passavant Hospitals. He was one of the organizers of the Chicago Medical College now the Northwestern University Medical School.

Schaefer, Frederick C., Chicago, June 3, aged 55. Dr. Schaefer was a man of great industry and learning. He died suddenly.

County and District Societies.

MARSHALL COUNTY MEDICAL SOCIETY.

Regular meetings are held semi-annually at different points in the county the second Tuesday of May and October. Membership 14.

Officers.

President ..... B. F. Forrest, Henry
Secretary-Treasurer ..... J. A. Swem, Henry

The regular semi-annual meeting was held May 10. There was much interest and enthusiasm. A few new members were added.

ALTON MEDICAL SOCIETY.

The following paper was read at a meeting of the Alton Medical Society, held April 14, 1904.

Eyestrain and the Sympathetic Nervous System.

Geo. E. Wilkinson, M. D. In the old University of Padua, Italy, is a tablet, whose Latin inscription translated into English reads about as follows: "To the alleviation of suffering and the prolongation of human life his work was dedicated." This tablet is placed to the memory of Sir William Harvey, the discoverer of the circulation of the blood, in the anatomical lecture room where he was a student during the palmy days of that institution. And, this inscription, I take it, should be the motto of every true and honest physician. Any factor, therefore, which causes pain and tends to shorten the duration of human life ought not to be overlooked.

It is a well established principle in life that every individual is endowed with a certain vitality, or power, which will last a longer or shorter period (depending upon the resistances with which it comes in contact) before disintegation sets in. It is, furthermore, usually conceded that every man has a certain amount of "nerve-force," part of which is stored up and is called-out in extreme emergencies. Now, it would seem a logical conclusion that no one could draw continuously from his reserve capital of nerve-force without ultimately exhausting it.

Within the past few years the attention of the medical profession has been called, more forcibly than ever before, to the fact that errors of refraction and accommodation of vision and the condition known as "muscular insufficiency" may constitute an important element in the causation of nervous disturbances of the so-called "functional type," and also of many symptoms referable to the viscera.

That some people are made dizzy from a height or inspecting a rushing waterfall is known by most everybody. That some people cannot ride on trains without having the "sick-headache" and others suffer pain in the head and are often made sick at the stomach by putting on glasses which give relief to a friend are common occurrences; but how few of us have drawn any lessons therefrom.

Most physicians know that a squint in the eye is often due to some defect in its refraction or of weakness of its muscles, but how many know that such a squint will frequently disappear immediately when the proper correction of the refraction of the eye has been made.

Clinical evidences and cases to show that headache, gastritis, constipation, neuralgia, chorea, nervous prostration, and a whole train of reflex nervous symptoms may be cured or abated by correction of errors of refraction and muscular anomalies are omitted from this report. The effects of errors of refraction and muscular anomalies upon the eye itself were not discussed.

The following resolution was introduced by Waldo Fisher, April 14, 1904.

Resolved, That the Alton Medical Society request the editors of the Alton newspapers to kindly omit the names of attending physicians when reporting surgical operations and cases of sickness or accident.

CRAWFORD COUNTY MEDICAL SOCIETY.

Regular meetings are held the second Thursday in every second month. Membership 24.

Officers.

President ..... J. W. Kirk, Oblong
Vice President ..... C. E. Price, Eaton
Secretary ..... H. N. Rafferty, Robinson
Treasurer ..... C. H. Voorheis, Hutsonville
Board of Censors: W. H. Hoskins, Trimble; G. W. Fuller, Palestine.

The Crawford County Medical Society met in regular session at the office of Dr. Frank Dunham, in Robinson, May 12, 1904.

The following members and visitors were present: Dunham, Meserve, Firebaugh, Barlow, H. N. Rafferty and Burner, of Robinson: Cooley, Kirk, Edwards and Mitchell, of Oblong; Fuller and Gordon, of Palestine; Voorheis and Eaton, of Hutsonville; Midgett, of Flat Rock; Hayhurst, of Birds; Petty, of Westport; Price of Eaton; and Hoskinson of Trimble.

The minutes of the previous meeting were read and approved. Dr. I. L. Firebaugh read the first paper of the afternoon, his subject being **A Consideration of Pulse, Respiration and Temperature as Guides to Diagnosis and Prognosis.** This was a production of much force and clearness, and, taken in conjunction with the paper on **The Diagnostic Significance of Pain** read by Dr. Barlow some time ago, should be of much benefit to each of us in making diagnoses and prognoses that will stand the test of time. After a full discussion of this subject, Dr. E. M. Cooley read a paper on **Rural Obstetrics,** closing with a description of his manner of conducting an ordinary obstetric case in the country. That the subject of Obstetrics is of perennial interest to the society was made manifest by the full and lengthy discussion of this paper.

Dr. G. W. Fuller next reported a case of multilocular cyst of the ovary, exhibiting the specimen, which weighed eight pounds, and was well preserved. The case was operated on Sept. 16, 1903, by Drs. T. N. and H. N. Rafferty, and

the patient is now enjoying the best of health.

The revised fee-bill was next taken up for discussion, and was accepted, with such modifications and additions as the society saw fit to make during it's reading. This scale is to serve as the minimum charge throughout the county, but gives the privilege of increasing the fees, where unusual service is rendered, in the opinion of the attendant. It was moved and carried that the secretary be instructed to send printed copies of this fee-bill to the members of the society.

On motion of Barlow, H. N. Rafferty was appointed delegate to the coming meeting of the State Society at Bloomington.

Dr. C. Barlow read an invitation to the society to attend the next meeting of the Jasper County Medical Society, which is to be held at Ste. Marie, Ill., on the first Friday in July. On motion the secretary was instructed to acknowledge the invitation by letter.

The society then adjourned, to meet at the office of Dr. A. G. Meserve, on Thursday, July 14th, 1904. This will be our annual meeting, at which time officers for the ensuing year will be elected.

CHAMPAIGN COUNTY MEDICAL SOCIETY.

Regular meetings are held in Champaign at the Hotel Beardsley the third Thursday of each month. Membership 60.

Officers.

President.....S. S. Salisbury, Champaign
Vice-President.....W. L. Gray, Champaign
Secretary and Treasurer....Jas. S. Mason, Rantoul
Censors.....C. H. Spears, H. E. Cushing, Champaign, and J. A. Hoffman, Pesotum.

The April meeting of the Champaign County Medical Society convened at 2:30 p. m., April 21st in Hotel Beardsley, Champaign, Dr. Salisbury, presiding.

There were present: Drs. Salisbury, Martin, Cushing, Wall, Howard, S. W. Shurtz, R. E. Shurtz, Johnson, Burres, Mandeville, Gulick, J. E. White, Lyon, Brayshaw, Kinchsloe, Foelsch, C. P. Hoffman, Matheny, Spears, Kariber, Powers, Newcomb, Renfrew and Mason.

The following were elected to membership: Dr. F. S. Diller, of Rantoul; Dr. Ryerson, of Champaign and Dr. Rudy, of Champaign.

The application of W. M. Honn was read and referred to the Board of Censors.

Dr. John Martin, of Tolono, read a paper on **Influenza and** Dr. Joseph Brayshaw, of Homer, presented a paper on **The Coal Tar Products of the Benzine Group.** Both papers showed much individual research and were too carefully and scientifically prepared to permit of other than full publication.

A general discussion followed the reading of Papers.

The annual banquet of the society was given at 8 P. M. in the splendid dining hall of the "Beardsley." The spread was one of the most pleasing given by the Society in years and reflected credit upon the banquet committee and our genial Mr. Hatch. The presence of the physicians' wives and lady friends added an exceptional charm to the occasion.

Toasts were responded to by W. J. Fernald, of Frankfort, Ind.; H. E. Cushing, Jennie Lyon, C. D. Gulick, Jas. S. Mason, W. K. Newcomb and W. F. Burres. Dr. J. D. Mandeville acted as toastmaster.

DECATUR MEDICAL SOCIETY.

Regular meetings are held on the fourth Tuesday of each month. Membership 60.

Officers.

President ..... Lynn Barnes, Decatur
Secretary-Treasurer ..... W. C. Bowers, Decatur

The Decatur Medical Society held its regular monthly meeting May 24th, 1904, at 8 P. M., in the Decatur Club rooms. President Lynn Barnes in the chair.

Dr. C. Martin Wood gave an interesting talk on **Observations in New York Hospitals,** where he recently spent six weeks.

He mentioned the fact that the operation of decapsulating the kidney is not done as much as formerly, because the results are not permanent or satisfactory.

Striking results were seen in tuberculosis by the use of one ounce of Russell's Emulsion of oils night and morning, with 6 or 8 weeks rest in bed and milk every hour up to six or eight pints per day. Many patients lost their symptoms, gained in weight and returned to work.

Robert T. Morris drains Proas Abscesses into the peritoneal cavity. He also drains a localized abscess of the appendix into the peritoneal cavity, after the acute symptoms have subsided and the patient is rapidly improving.

Dr. Chas. M. Wood, of Maroa, Ill., gave an excellent talk on a case of probable **Smallpox Resembling Purpura Hemorrhagica.** Smallpox was suspected early in the case, but later appeared as above stated, the patient dying. The remarkable part is that several severe and mild cases of genuine smallpox seemed to take their sickness from exposure to this case of apparent Purpura.

Dr. M. D. Pollock is yet too ill to do more than drive out short trips twice a day for recreation.

Dr. Will Wood is confined to the house by illness, but not serious.

The members took great interest in the meeting and the attendance was good.

PEORIA CITY MEDICAL SOCIETY.

Regular meetings are held in the Observatory Building, Peoria, on the first and third Tuesdays of each month. Membership 72.

Officers.

President ..... L. A. McFadden
First Vice President ..... J. C. Roberts
Second Vice President ..... B. M. Stephenson
Treasurer ..... Jeanette Wallace
Secretary ..... S. M. Miller
Censors: E. M. Sutton, one year; A. J. Kanne, two years; F. B. Lucas, three years.

The Peoria City Medical Society met in the Observatory Building, Dr. L. A. McFadden, President, in the chair.

Dr. Cooper, of Peoria, was admitted to membership. The following resolution relative to the pure food bill was adopted:

Whereas, The adulteration and misnaming of foods, drugs and medicines offered for

ale in the markets in the United States has become a menace to the health and lives of the people and,

Whereas, "A Bill for Preventing the Adulteration or Misnaming of Foods or Drugs, and for Regulation of Traffic therein and for other Purposes, and designated as H. R. 6295" has been introduced and passed by the House of Representatives and is now pending in the Senate of the United States; be it

Resolved, That the Peoria City Medical Society indorse the provisions of said bill and urge the members of said body, and especially Senators Cullom and Hopkins, of Illinois, to use their influence to secure its passage and to cast their votes in favor of said bill.

Resolved, That we request the public press of the State of Illinois, and especially of Peoria County, to make known through their respective publications the provisions and importance of said legislation and give the same editorial comment and endorsement. Be it further

Resolved, That we request the citizens of the State of Illinois, and especially of Peoria County, to familiarize themselves with the provisions of said bill and if it meets with their approval to use their personal influence with our Senators to secure its passage.

R. A. Kerr,
C. H. Probst,
Clifford U. Collins.

A committee was appointed to obtain the publication of this resolution in the press of the city, and to obtain favorable editorial comment upon it, and to circulate a petition among prominent political leaders and business men, to be forwarded, together with a petition from the Society, to the committee on Manufacturers of the U. S. Senate. The committee appointed was S. M. Miller, Chairman; W. T. Sloan, and W. R. Allison.

The following resolution relative to the death of Dr. Paul Dombrowski was adopted:

Whereas, Through the intervention of death, Dr. Paul Dombrowski is no longer of our number; be it

Resolved, That the Peoria City Medical Society mourns in him the loss of a most excellent gentleman, a devoted student, a scholar of no mean attainments, and a most capable and conscientious practitioner of medicine. His position in medical affairs was such that his patients have lost a great benefactor and his fellow members a valued consultant and operator. His relations to Peoria and her citizens were unostentatious, but in every quarter, from homeless children to social and business leaders, he is most sincerely mourned.

Resolved, That while this Society may add nothing to the high esteem in which he was held by those who knew him, or fittingly express in words the tribute it would pay the man and the physician, that this acknowledgement of our appreciation of him and of the loss to the Society brought by his untimely death be given the bereaved family of the deceased, the press of our city, and made a part of the records of the Peoria City Medical Society.

A committee was appointed for the purpose of incorporating the Peoria City Medical Society. The committee consists of Dr. A. J. Kanne, E. M. Sutton, and M. V. Gunn. Dr. M. S. Marcy was appointed delegate of the society to the State meeting.

Dr. C. H. Brobst read a paper on **The Relation of Eye Symptoms to General Diseases.**

Dr. Collins reported a case of Tuberculosis of the mesenteric glands.

Eye Symptoms in Neurasthenics.

Dr. C. H. Brobst. It is a common occurence for the oculist to be consulted by patients who are suffering with eye symptoms that are merely a reflex; the result of a constitutional disease or the result of some toxic substance taken into the system by accident or by design or in the form of drugs which are taken in excessive doses. Possibly the class of patients that come under our care, and give us the most concern and the poorest results in point of treatment, are the neurasthenics who are found in both sexes.

The female sex, however, predominates, and when the opthalmologist is so unfortunate as to have placed into his care a male who is a suffering neurasthenic and, the eyes being the principle centre of attraction, it is well, if he does not lose his patient, possibly by mutual agreement before he has made any decided inroad upon the disease.

The majority of these neurasthenic cases are women who are referred to us by the family physician. The symptoms in nearly all cases are characteristic in their sameness. They are usually referred to the oculist to have the refraction corrected, because the patient complains of headache from using the eyes, and, bright light is almost intolerable and they claim that they are unable to see well with or without glasses in artificial light.

Headache in the occipital region and pain in the balls of the eyes on rising in the morning are also symptoms. Often these patients see double when they are fatigued. Undue excitement, or riding on a rail-road train and looking through the window at fast moving objects will bring on headache and nausea.

Some of my patients have suffered periodic attacks of megrim. For a number of years there have been a host of observers, among whom are the ophalmologists, who have tried to find a true etiology of this disease, and who have cited such factors as errors of refraction, hypermetropia, myopia, astigmatism, and the most potent factor of all which is held up before us at the present day, as being the cause of imaginary ills, is muscular imbalance.

There is no denying the fact, but the oculist's claims as to the cause of neurasthenia in some of the cases are well founded. Out of fifty-two cases tabulated from my records, suffering from extreme nervousness, pain in the eyes, insomnia and indigestion, symptoms which were more or less ascribed to some refractive error or muscular imbalance. I found on examination that forty-two, or eighty per cent., had some

error of refraction and in most of these cases the principle error was astigmatism, all of these cases having materially benefited and some of them completely cured. As to the muscular imbalance in this class of cases, which of late has been so much written about, and which has been given the credit of being the chief etiological factor in the majority of these neurasthenics, after a thorough examination of my cases I found that thirty-three, or sixty-three per cent. had more or less muscular trouble and would have accepted prisms in combination with other lenses, but in only six, or eighteen per cent., was it necessary to adjust prisms to correct the disturbed muscular equilibrium, and in all of these cases it proved to be a remedy giving great relief, and in a few cases complete cure for all attending nervous manifestations.

However, through experience gained by following up many neurasthenics, who have more or less manifestations of muscular imbalance, I am convinced that in the majority of the cases this is only a symptom of a deteriorated and exhausted nervous system rather than a primary cause.

Physical exertion due to over work, worry or loss of sleep are usually the exciting causes of the eye symptoms and muscular insufficiency, that is, where ametropia cannot be held responsible for any of the reflex neuroses.

All the etiological circumstances which I have enumerated generally present themselves at once to the mind of the physician in the presence of a muscular paralysis of the eye.

A careful examination will enable us to eliminate the majority, by directing our attention more especially to certain ones among them. Generally, affections of this kind, when they arise in young and apparently healthy individuals, when not due to traumatism, are of rheumatic or syphilitic origin. Hence one should suspect syphilis in such a case, and should inquire concerning the patient's morbid antecedents. If the affection began subsequent to exposure to cold, and is accompanied by frontal and periorbital pain with painful sensations when the eyes are moved, it is likely to be of rheumatical origin. If neither of these two causes appear to be in action it is best to seek for symptoms of tabes dorsalis; the abolition of the patellar reflexes, and—a symptom much more characteristic—the immobility of the pupil under the influence of light, its contraction accompanying convergence. (Argyle Robertson, pupil.)

The urine ought always to be examined, in order to learn whether or not it contains albumen, or sugar.

If all these investigations remain without result, we may investigate the possibility of the eye symptoms being due to poisoning by lead, diseased meat, tobacco, alcohol or other injurious substances; finally hysteria has to be taken into account.

The nature of the paralyses which follow diphtheria will soon be recognized by the history of the case. The latter, however, ought to be peculiarly exact, considering all the details.

LIVINGSTON COUNTY MEDICAL SOCIETY.

Regular meetings are held at Pontiac the first Thursday of May and December. Membership 35.

Officers.

President ..... J. J. Stites, Pontiac
Vice President.....E. H. Fitzpatrick, Pontiac
Secretary..... .....John Ross, Pontiac
Board of Censors: E. E. McCoy, Flanagan; James M. Mitchell, Pontiac and G. T. Carson, Chatsworth.
Delegate to State Society.....G. C. Lewis, Fairbury

Twenty members of the above Society met in the City Hall at Pontiac and held their seventh semi-annual meeting, May 5th.

Dr. P. C. Wikoff of Emington and Dr. M. C. Brookshire of Graymont, were admitted to membership.

Officers were elected as above.

The next meeting of the Society was postponed until the first week of December, when the North Central Illinois Medical Society will be entertained by the County Society. Drs. Ross, Baker, Scouller, Marshall and Mitchell were appointed to make arrangements for the visiting Society.

The following program was heard:

Neurasthenia, H. M. Presler, Cullom. Discussion led by J. J. Pearson, Pontiac.

Diet in Diseases, J. M. Mitchell, Pontiac. Discussion led by E. E. McCoy, Flanagan.

The Past, Present and Future of Medical Practice, H. E. Johnson, Fairbury.

H. E. Johnson: When I began to select a subject for this paper, there seemed to be so many and varied topics of interest to our profession, that I was as the saying goes, "up against it." To choose any of the many diseases which I had treated was to thrash over the old straw and the chances were that my experiences would be of little benefit to this Society; for, "convince a man—against his will and he is of the same opinion still." Believing that this would be a good time to compare the medical profession of the past, with the present and imagine what it will be in the future, I am going to risk being called an old back number and choose for my subject, "The Old and the New."

I wish to make it plain, in the beginning, that I am not prejudiced in favor of the old, and that I believe that there has been greater advancement in medical and surgical practice in the past fifty years than in any other science, but I believe it never will be an exact science. Yet I sometimes think that in our zeal, push and anxiety to be ahead, we are lowering the standard of morals and medical etiquet. I think there is a possible danger of our losing sight, in a measure, of the duty we owe to our patients and to society, thus becoming a class of specialists and riding a hobby into a rut.

In order that I may be fully understood, I will say that forty-seven years ago, I began practicing medicine in one of the back hill towns on the Green Mountains, fifteen miles from a railroad or drug store. The nearest doctor on the north being Dr. Tucker, six miles away, and on the south Dr. Smith, also six miles. Both of these men had been practicing there for fifty years; they were neither

of them graduates, neither of them had ever attended a medical school; probably neither of them ever saw a medical journal, nor had they more than three or four medical books, they would not have read them if they had them. What knowledge they had of anatomy, physiology, materia-medica, or surgery, they had learned from observation and word of mouth. Microbes, septicemia and blood culture had no terrors for them; they had never heard of such things, yet they had learned to pin their faith on one of our best antiseptics—calomel.

They did not use the stethoscope, phonendoscope, fever thermometer, nor hypodermic syringe, but with crude drugs, which I will name later, with sterling characters, and good common sense they were successful. A young doctor visiting Dr. Tucker and on seeing him putting up some powders by guess, said: "Doctor we were taught to use druggists scales and weigh all of our medicines before pescribing." Dr. Tucker replied that the plan would be all right, if he had a set of Fairbank's scales to weigh the patients first, and that there was as much sense in the one as in the other.

What was true of Drs. Tucker and Smith was true of all the cross-roads doctors of fifty years ago. Their armamentarium and stock consisted of an office on the same lot with their dwelling. In that office you usually found a wedge wood morter, a set of crude scales, roots, herbs, powders and a few bottles containing ammonia, turpentine, castor oil and perhaps a few containing homemade tinctures and effusions. The powders consisted of gum opium, gum guiac, camphor, rhubarb, mandrake, calomel, jalap, dandelion root; herbs of all kinds carefully gathered and dried. These doctors had no tablets nor pills (except home made ones), nor druggists' prescription blanks, nor were they ever bothered with substitution—giving something better than that prescribed. With this stock of medicines, without telegraph, telephone or brother physicians to consult in an emergency, these old time practitioners had to rely on themselves.

The doctor would go forth on horseback with his old fashioned saddle-bags, or in his one horse shay, making his rounds to visit the sick and comfort the afflicted. He employed no graduate nurse, neither did he need one, for he was an adept at nursing himself. He never heard of such a thing as Christian Science, but he did understand suggestive influence and practiced it for all it was worth. He was an excellent story teller and usually had one ready to fit any and all occasions. He always brought sunshine and good cheer with him and always gained the confidence of his patients, and his presence at the bedside always gave hope and encouragement. I have often wished that I could find a physician of the present day in whom I could have the confidence that I once had in old Dr. Washburn, my father's family physician.

These old doctors were important personages in every community, generally they were the Justice of the Peace, and usually the local preacher. They attended all births, practiced in the families, married the marriageable, acted as undertaker, and preached the funerals for generations. They knew all family secrets, constitutions, idiosyncrasies and hereditary taints, which gave them great advantage over a stranger.

These old doctors understood counter irritation such as cupping and blistering with Spanish flies. They used the most depletory remedies using the lance for blood-letting unsparingly. Calomel and jalap were nearly always given. They were successful in treating lung fever, congestion of various organs, erysipelas, puerperal convulsions, child bed fever, canker rash and measles. In eight years that I was practicing there I remember but one death from child bed fever and that case was not seen by either physician until about twelve hours before death.

These physicians knew the benefit of emetics and usually prescribed them (they called it a puke) to clear the stomach. They did not know that it relieved the portal congestion, but they knew it often relieved the distress and that was what they desired. They had, none of the coal tar prescriptions, morphine, codein nor heroin; but they did have crude opium, and this was their sheet anchor in all pains. They had no quinine nor any of the alkaloids of Peruvian bark, but they had the bark and knew how to use it in powders or effusion. It was rather a bitter dose but it did the work.

These doctors had no strychnine, nor nux vomica; but they had dog buttons and foxglove. They had very few cases of heart disease to treat and never heart failure. They knew by experience the action of skunk cabbage, night shade, poison hembock, lobelia, blood root, snake root, Indian turnip, green meadow, smart root, boneset, peneroyal, tansy, catnip, hand hack, nut gall, oak, wild cherry, hops, pumpkin and watermelon seed. All of these and many more they had in crude form. I ask if we take what I have mentioned, if there is not some element in some one of these, that will meet nearly every condition which we find today. The only difference is in the elegance, convenience and taste of the manufactured preparations.

These physicians in their obstetrical and gynecological practice were uniformally successful. They usually succeeded in delivering the child without exposing the mother's person and without any laceration. They seldom used obstetrical forceps or other instruments. It was a very rare occurrence to find a lacerated perineum, fistula, ulceration or any of the various female diseases which are the bane and curse of the women of the present day. They knew nothing about antiseptic and prophylactic treatment but they insisted upon cleanliness and rest. The strength and health of the motherhood of fifty years ago, who invariably bore and cared for large families was in every way superior to our modern mothers who rear one or two children, this is a fact, that none can deny, the cause of this degeneration I cannot stop to discuss but I do know that the cross-roads doctor did not cause it.

He did not claim to be a dentist but he was ready to pull teeth at any and all times and places. Persons with tooth ache meeting this

old doctor any place could have the offending member extracted. I have here a tourniquet at least one hundred years old, it had done good service, but not for many years, when the doctor got this hitched on, something had to come or bleed, usually both happened.

This cross-roads doctor as a surgeon, showed judgment, skill and inventive genius, when you remember that he had limited knowledge of anatomy. He had no anaestheties, a limited number of instruments which were of the crudest kind and workmanship, and he was thus compelled to depend upon his mother wit and judgment. He managed to perform many difficult operations, which would puzzle some of our ablest surgeons of today, were they hampered as much and had as little to do with as the old doctor had. I remember when I was a small boy, that an old lady in our neighborhood, in falling broke her leg below the knee. Dr. Washburn was hastily sent for, the messenger told the doctor that the bones were sticking out below the knee. On his way to the patient he borrowed a saw and a piece of inch board. He sawed the bone off as near to the flesh as possible and made an open box of the board. While two strong men pulled on the foot, he adjusted the fracture, he placed the limb in the box, padded and held it in place with home made tow from flax. Fastened a rope to the foot, drew the rope over a spool which he had fastened to the bed-stead and used brick for weights. He ordered the limb to be bathed in cold wormwood tea. He got perfect union, with but little shortening. Could you conceive of a more antiseptic treatment? I have seen a number of cases of compound communuted fractures and amputations attended by these old surgeons without any especial antiseptic precautions, with crude ill kept appliances and instruments almost invariably with success. In contrast to this I will say that some five or six years ago, a healthy young man fractured his leg, a simple fracture below the knee, he received a punctured wound at the same time about two or three inches below the fracture. He was attended by two modern surgeons who were supposed to use and probably did use all antiseptic precautions, but sixteen days after the accident his limb was amputated above the knee. A few years ago as I was passing a farm house, not ten miles from this city, I was hailed by the occupant, who wanted me to see his daughter, who had been kicked by a horse, two days before. The flesh had been torn making quite a large wound in her cheek. The father had sewed it up taking six or eight stitches with a common needle and black linen thread, without washing or in any way cleansing the wound, in fact it had not yet been washed at the time I saw it. The father wanted to know how long he should leave the stitches in and I must confess that I did not know what to advise. She is a young lady now, with but a very little scar, not enough to mar her looks. Sometime ago I was called to attend a boy some fifteen or sixteen months old, in one of the dirtiest, filthiest homes in our city. He had put his hand into a pail of hot water, the skin immediately peeled off, not leaving a particle of skin on any part of the hand. The surroundings were so filthy that not a piece of cloth could be found fit for an outer covering. Every time the hand was dressed it would be in the most filthy condition, yet it healed quickly and perfectly without any deformity. How often we have burns not so extensive as this that are treated by modern methods, surrounded, by the best sanitary conditions, which cannot be healed without skin grafting. I could multiply instances without number equally as plain as these; and I ask why is it so. Shall we ever be able to prove to the laity that we have solved the problem, why one accident or wound does badly and one equally as bad and not so well surrounded does well.

Thinking some may call me an old fogy and a stickler for the old, I deny the charge. I simply state facts as I find them and say that I am as anxious as anyone to solve these problems, and believe in taking all the precautions possible to fight the bacteria, but I must confess that the medical profession of today and the past few years are running to extremes, and by so doing are lowering the standard of medical influence.

A few years ago the medical journals and secular press were full of notices of operations for the removal of the appendix. It became a fad. It was thought if grape seed, cherry pits, or other like substances dropped into this pocket it was sure death unless you were cut open and the offender removed. Now one of the shining lights of our profession says that it is all a fallacy, that foreign substances, such as above mentioned, cannot get into the appendix in normal condition. Medical experts and chemists will, under oath, contradict each other. You can prove anything by them.

For the past few years there has been in our section an epidemic of tumors. Many have been removed from the womb, ovaries and fallopian tubes. It has been very fashionable to go to the city hospital and have them removed, and it is generally understood that the home doctor gets a rake off or a divide with the surgeon who does the cutting and it is generally believed that very many of these operations are not necessary and many not honestly performed as reported. I know of a woman who was sent to one of these hospitals for an operation. The operation cost the husband between four and five hundred dollars, and in less than a year the woman gave birth to a healthy boy. The operation may have been worth all it cost, but it will take a good deal of argument to convince this couple that it is a positive cure for sterility. I will not recommend it to any of my patients for that purpose. These, gentlemen, are facts, as I have seen them and I ask in all seriousness, with these conditions of affairs, is it any wonder that people will patronize patent medicine venders, advertising quacks and traveling doctors. Can we expect to retain our position or influence and confidence with the public, that our profession should have? Fifty years ago if a physician became established as family physician in a family it was a permanent thing. I ask of each of you, how many families can you depend upon to employ you steadily? Very few. Why is

ff? Is it because they are more fickle and nxious to experiment than formerly, or is it ecause they are losing confidence in our hon-sty or skill? I think we would do well to udy the drift and tendency of our position and e where we are drifting. I believe ours is the ost useful and noble profession, but the hard-t worked, poorest paid, and most thankless.

In conclusion, gentlemen, I want to say: Do t despise and look down upon cross-roads octors of one hundred years ago, but remem-r that they were the advance guard, who azed the path through the trackless forest of norance and broke the fallow ground that has abled us to put in the seed, and made it pos-ble for us to reap a harvest that shall be an nor to our profession and a blessing to man-nd, if we only heed the lessons which they ught us, and if we practice with the same hon-sty that they did. I for one would certainly off my hat to him should I meet him again.

Discussion led by J. D. Scouller, Pontiac.

Empyema, Milton Palm, Dwight. Discus-on led by J. A. Marshall, Pontiac.

Some Unclassified Morbid Conditions Met With in General Practice, E. H. Fitzpatrick, Pontiac. Discussion led by A. H. Thatcher, Fairbury.

Resolutions congratulating Dr. A. B. Mid-dleton, upon his recovery from his recent ill-ness were passed by the Society.

ST. CLAIR COUNTY MEDICAL SOCIETY.

Regular meetings are held at Priester's Park, Belle-ville, the first Thursday of January, April, July and October. Membership 81.

Officers.

President ..... C. H. Starkel
Vice President ..... W. E. Wiatt
Treasurer ..... A. E. Hansing
Corresponding Secretary ..... C. W. Lillie
Recording Secretary ..... B. H. Portuondo

The St. Clair County Medical Society held its annual meeting at Priester's Park, April 7, 1904, with President Lillie in the chair, and the following members present: Drs. Hilgard, Scruggs, Adams, Sloey, Rayhill, Zimmermann, Herold, Wangelin, Massie, Kerchner, W. E. Wiatt, Raab, Gunn, Irwin, Hansing, Whitmer, Cannady, H. G. Hertel, Reis, J. W. Twitchell, Starkel, and Portuondo. As visitors Drs. A. L. Reuss, John O. Butler, Elmer Scheve, Frank G. Huwatchek.

Roll call showed all officers and censors present except Dr. Rembe.

Minutes of the preceding meeting were read and approved.

Dr. Massie reported two very interesting cases; one was illustrated by photographs showing what appeared to be scar tissue on the leg of a child born with those marks, attributed by the mother to having seen an ulcer on the leg of her mother-in-law during her pregnancy. Dr. Lillie, in discussing this case, said that, with the great majority of the profession, he looked upon instances of this kind as mere coincidences.

Dr. Massie's second case was one of tetanus developing, he thought, on the third day after sustaining an injury of one of the fingers. The patient presented all the clinical symptoms of tetanus, was treated antitoxin every three hours, also with eserine, sodium bromide, and chloral, and made a perfect recovery in fifteen days.

Dr. Whitmer said that the period of incubation was unusually short in this case, as it takes longer than three days for the bacillus to develop in the test tube.

Dr. Zimmerman stated that he has had three cases of tetanus and that the period of incubation was only four days in all of them.

An amendment to Article 7 of the Constitution of the St. Clair County Medical Society, signed by Drs. Lillie, Hansing, and Portuondo, and providing for monthly meetings, instead of quarterly, was, in accordance with the Constitution, referred to the next regular meeting for action.

A question by Dr. Hilgard, corresponding secretary, as to whether he should invite all physicians in the county to join the Society or only such as were graduates of regular schools, led to a very interesting and general discussion participated in by Drs. Hilgard, Whitmer, Adams, Raab and Portuondo, as a result of which Dr. Portuondo, seconded by Drs. Hilgard and Irwin, presented the following:

Resolved, That the term "regular" in the constitution, be held to mean any one who can secure the endorsement of three members of this Society.

After explaining that the sole and only object of this resolution was to give an opportunity to a number of very worthy and honorable members of the profession who were now practicing medicine according to the tenets of the regular profession; but who were not graduates of regular medical schools, to have their names presented as candidates for membership and thus allow the board of censors to pass upon them. The vote on the resolution resulted in a tie and President Lillie cast the deciding vote in the affirmative, stating that he did so because he felt confident that only worthy practitioners could secure the endorsement of three members of this society.

Bills amounting to $4.64 were allowed and ordered paid.

Dr. Wangelin called attention of the Society to the fact that a new county physician is to be appointed soon, and suggested that the Supervisors be requested to increase the salary as at present the county physician, with a great deal of work to do, is paid only $700 per year. A general discussion followed, all agreeing to the necessity of doing something to remedy the injustice done the county physician.

A committee, consisting of Drs. H. Wangelin, H. G. Hertel, and A. E. Hansing, was appointed to draw resolutions to be presented to the Board of Supervisors. The committee reported as follows:

Be It Resolved, That it is the sense of the St. Clair County Medical Society that the salary of the County Physician at Belleville should be raised to at least $1,200, and the salary of the East St. Louis assistant to $1,000.

The resolution was unanimously adopted, and the Secretary was instructed to send a copy of it to each supervisor.

Dr. Irwin was appointed to act as member of the Board of Censors in place of Dr. Rembe who was absent.

The Board reported favorably upon the following applicants for membership and all were elected by unanimous vote of the Society: Drs. R. X. McCracken, John O. Butler, Frank G. Huwatchek, A. L. Reuss, Elmer Scheve.

The Treasurer reported cash on hand $75.39.

Dr. C. W. Lillie, as retiring President, read a very scholarly valedictory, replete with good, sound, practical advice that was greatly appreciated by all members present, and on motion was ordered to be printed in the official organ of the Society, and to be made a part of the records.

A committee, composed of Drs. Gunn, Adams and Kerchner, was appointed to present nominations for the different offices of the Society, this being the Annual meeting at which the officers are to be elected.

The committee report was unanimously adopted by a vote of the Society and the above gentlemen were elected.

A vote of thanks was tendered the retiring officers.

The new officers were installed and the Society adjourned to meet again in July.

BELLEVILLE MEDICAL ASSOCIATION.

Officers.

President ..... A. Scheel
Vice President ..... E. P. Raab
Secretary-Treasurer ..... B. H. Portuondo

The physicians of Belleville, Ill., at a meeting held May 6, 1904, organized the Belleville Medical Association. Officers were elected as above. A committee was appointed to report at the next meeting, May 31, a constitution and by-laws for the association.

WESTERN ILLINOIS DISTRICT MEDICAL SOCIETY.

Regular meetings are held on the first Friday in May and the last Friday in October, at such places in the district as may be selected by the Board of Censors.
Membership 60.

Officers.

President ..... H. A. Chapin, White Hall
First Vice Pres ..... A. K. Van Horn, Jerseyville
Second Vice Pres ..... H. W. Smith, Roodhouse
Secretary-Treasurer .. H.W. Chapman, White Hall
Censors: T. J. Pitner, Jacksonville; Waldo Fisher, Alton; F. A. Clement, Greenfield.

Report of annual meeting of the Western Illinois District Medical Society, held in Jacksonville, May 6, 1904.

Promptly at twelve o'clock, noon, an elaborate dinner was served in a private dining room of the Pacific Hotel, where the members of the Society and their guests were duly and amply fortified for the labors of the afternoon.

At 2:15 p. m., the Society was called to order in the rooms of the Carnegie Public Library, by the President, F. P. Norbury, of Jacksonville.

The officers as named at the head of this report were elected for the ensuing year.

Dr. Harold W. Jones of St. Louis read a very interesting paper on **The So Called Rheumatic Diseases.**

Dr. J. W. Hairgrove of Jacksonville, read an equally instructive paper on **Uterine Treatment.**

Dr. H. A. Potts of Jacksonville, read a very able paper on **The Value of Blood Examinations in Differential Diagnosis.**

These papers were all discussed freely.

There were present thirty-one visitors and members.

MERCER COUNTY MEDICAL SOCIETY.

Regular meetings are held at Aledo, quarterly.
Membership 25.

Officers.

President ..... C. W. Carter, Aledo
Vice President ..... H. I. Allen, New Boston
Secretary and Treasurer..V. A. McClanahan, Viola
Censors: H. H. Sherwood, E. J. Hay, P. T. Bohan

The annual meeting of the Mercer County Medical Society was held in the Court House Aledo, May 10, 1904.

The forenoon session was devoted to business, election of officers, reports of committees, etc.

The officers were elected for the year: See above.

Prior to the afternoon session the physicians and their wives enjoyed a splendid dinner prepared for them at the Palace Hotel.

Society was called to order by President-elect Carter and elected Dr. A. N. Mackey delegate to the annual meeting of the State Society and Dr. C. W. Carter, alternate.

Society then listened to an address by retiring President Fletcher on **The Objective and Subjective Mind.**

The Society then listened to an address by District Councilor Percy, of Galesburg, on **The Relation of the Local to the State Society.**

Dr. D. I. McMillan, of Sunbeam, read a paper on **Appendicitis** and this was followed by a paper on **The Doctor and Pharmaceutical Specialties** by Dr. H. H. Sherwood, of New Windsor.

All of the addresses and papers were enjoyed thoroughly discussed by the members.

The papers and addresses were good, a feeling of harmony and good fellowship prevailed and the meeting was a success.

The next meeting is to be held in July.

CLINTON COUNTY MEDICAL SOCIETY.

Officers.

Regular meetings are held on the first Tuesday of February, May, August and November.
Membership 18.

President ..... Ph. H. Leibrock
Vice President ..... B. J. Meirinke
Secretary ..... C. H. McMahan
Treasurer ..... T. E. Alsop

The Clinton County Medical Society held its regular annual meeting in Carlyle Wednesday, May 4th, with the following members present: W. P. Gordon, P. H. Leibrock, S. H. Wilcox, Th. Gaffner, A. W. Carter, B. J. Meirinke, T. E. Alsop, C. E. Hill, F. H. Brown, C. H. McMahan.

Meeting was called to order by President Gordon who informed the Society that it was to be his pleasure to entertain the members during the day. The hour being almost noon the

meeting was adjourned until 2 o'clock, the members proceeding to the home of Dr. Gordon, where a bountiful dinner was spread.

At 2 o'clock, p. m., the meeting was again called to order and after the usual preliminary business the Society selected the above officers to act during the ensuing year.

An interesting case of delayed resolution following lobar pneumonia was presented by Dr. Gordon, which was followed by a discussion of the subject.

Dr. W. P. Biles of Carlyle was a welcome visitor of the Society during the day, and read an interesting and instructive paper on **Eye Strain and its Relation to Reflex Disturbance.**

The next regular quarterly meeting will be held in Trenton on the first Tuesday in August.

ADAMS COUNTY MEDICAL SOCIETY.

Regular meetings held in Quincy the second Monday of each month at 2 p. m. Membership 70.

Officers.

President ..... L. H. A. Nickerson, Quincy
First Vice Pres ..... John A. Koch, Quincy
Second Vice Pres ..... J. M. Grimes, Camp Point
Secretary ..... Geo. E. Rosenthal, Quincy
Treasurer ..... R. J. Christie, Jr., Quincy
Censors: C. D. Center, Jos. Robbins, S. B. Ashton, Quincy.
Delegate State Society..E. B. Montgomery, Quincy

The May meeting of the Society was held at the Chamber of Commerce, May 9th, President Nickerson, being in the chair.

The following members were present: Drs. Nickerson, Center, Grimes, Gilliland, Rosenthal, Koch, J. W. Williams, Fletcher, Vasen, Christie, Jr., Knapp, W. J. Nichols and Montgomery.

Dr. C. D. Center presented an admirable paper on **The Harmfulness of Long Continued Drainage in Empyaema Cases.** While the paper bore particularly upon pleural empyaemas the deductions and treatment would apply to collections of pus in any of the body cavities, in some degree.

The etiology and bacteriology of the malady were considered fully, prognosis would depend on the nature of the infecting agent, the pneumococcus exudate being favorable under most conditions, a sterile pus indicative of tuberculosis and the streptococcus would suggest sepsis elsewhere.

Processes resulting from the presence of each of these bacteria calling for differentiation in the line of surgical and general treatment. The inflammatory pleuritic thickening results in limitation of the expiratory excursion and being a scar tissue ends in contraction, this further decreasing excursion. In some cases the pleura becomes so thickened, leathery and heavy as to cause compression of the air cells by its weight alone.

Desirability of pus evacuation from the pleural cavity is not disputed, the point taken being that the presence of the drainage tube after from three to ten days encourages pleuritic thickening by the presence of mechanical irritation and, again the drainage tube can not be maintained sterile in a pus cavity, in addition, by introducing a tube into a pleura containing a sterile product we erect an atrium for the infection of an exceedingly fertile culture medium.

The doctor prefers thoracotomy without rib resection if the case is not one of long standing. His objections to resection being that the chest wall is weakened, chest motion so restricted and lung collapse favored.

A short drainage tube is advocated, one reaching just through the chest wall being in some cases all that is necessary. From the time of withdrawal of the tube until recovery caution should be used in regard to the amount of irrigating fluid, as the mere weight thereof is sufficient to break down the new formed adhesions which are to result in closure of the sinus.

Certain gymnastics—deep inhalations, extension of arms above and behind the head and hanging by the hands on a horizontal bar are recommended to obliterate the unnatural cavity in the pleural fold and to expand the lung.

The paper was closed with a report of cases in children treated without rib resection and with little or no irrigation, these terminating in good recoveries.

Drs. W. W. Williams, Gilliland, R. J. Christie, Jr. and Montgomery took part in the discussion which was closed by Dr. Center.

Dr. Christie reported a case of **Chronic Gastritis Greatly Benefited by a Gastro-Enterostomy** after medicinal and dietary treatment had failed. The anostomosis was done with a Murphy button, button was passed on the twelfth day and patient discharged on the twenty-first. Anastomosis was between stomach and jejunum, no vicious circle resulted.

Dr. Rosenthal reported a case of **Obturator Hernia** with strangulation and necrosis of intestine, patient defecates through a foecal fistula 1½ inches below middle of pouparts ligament.

Adjournment.

DECATUR MEDICAL SOCIETY.

Regular meetings are held in the Decatur Club Rooms the fourth Tuesday of each month Membership 62.

Officers.

President ..... Lynn M. Barnes
Vice President ..... Clara Garber
Secretary-Treasurer ..... W. C. Bowers
Board of Censors: E. A. Morgan, F. M. Anderson, J. Stebbins King.
Programe Committee: W. C. Bowers, Chairman; E. J. Brown, W. C. Wood, A. Wilhelmy, L. M. Barnes.
Delegates to the State Society: Cass Chenoweth, W. C. Bowers, E. J. Brown.

The Society held its annual meeting on Tuesday evening, April 26, 1904, at the Decatur Club rooms, for the election of officers.

Preceding the election Dr. Cass Chenoweth read an interesting and practical paper on **Cerebral Hemorrhage.**

Dr. Ben Bachrach opened the discussion and was followed by several other members of the Society.

The Society will probably at some time in the near future have a permanent home in the Medical Room of the Public Library.

A vote of sympathy and flowers were sent Dr. M. D. Pollock because of prolonged sickness

following an injury of the head sustained from falling at night in a stairway at his home several weeks ago.

The above officers were elected for the ensuing year.

Dr. S. E. McClelland, the retiring president, gave a smoker to the Society during the evening which was greatly enjoyed.

The past year has been a very pleasant and profitable one for the Decatur Medical Society.

PIKE COUNTY MEDICAL SOCIETY.

Regular meetings are held quarterly. Membership 32.

Officers.

President ..... H. T. Duffield, Pittsfield
Vice President ..... W. E. E. Shastid, Pittsfield
Secretary and Treasurer ..... R. H. Main, Barry

At a meeting of the Pike County Medical Society held at Pittsfield, Ill., April 21, 1904, the following members were present: Drs. J. Smith Thomas, W. E. Shastid, L. J. Harvey, F. M. Crane, B. B. Dunn, Geo. A. Humpert and H. T. Duffield. Dr. J. E. Miller was present as a visitor.

Dr. Harvey moved the adoption of the following resolution which carried:

Resolved, That the Pike County Medical Society fully endorses the provisions of House Bill No. 6295, entitled "A Bill for Preventing the Adulteration of Foods or Drugs and for regulating traffic therein and for other purposes"—and respectfully request that the same be enacted into law at the earliest practicable moment, and that this resolution should be brought to the notice of Senator S. M. Cullom, and others.

The above officers were elected for the ensuing year.

The following were elected to membership in the Society: Mary Henry of Summer Hill; W. H. Garrison of Pearl and Harold Cromwell of Nebo.

Dr. B. B. Dunn read a paper on **Neurasthenia** and reported a case which was discussed by Dr. Harvey.

Dr. Duffield reported a case of **Compound Dislocation of Ankle** which after resection of lower end of tibia made a good recovery and useful joint.

Conservative surgery was discussed generally by all members present.

DOUGLAS COUNTY MEDICAL SOCIETY.

Regular meetings are held at Tuscola. Membership 24.

Officers.

President ..... W. A. Wiseman, Camargo
Vice President ..... E. S. Allen, Arcola
Secretary ..... W. C. Blaine, Tuscola
Treasurer ..... W. E. Rice, Tuscola
Board of Censors: J. L. Reat, Tuscola, C. Rutherford, Newman and Lockwood.

The eleventh annual meeting of the Douglas County Medical Society was held in the K. of P. hall, Tuscola, May 5, 1904. The following members were present: Voyles, Reat, Rice, Brenton, Allen, Wiseman, Colyer, Harper, Ewing, McNeil, Rutherford, Martin, Lockwood and Blaine.

The minutes of the last regular meeting were read and approved.

The President appointed Drs. Voyles and Allen as Representatives and Colyer and Ewing as alternates to the State Society.

An admirable paper was then presented by Dr. G. M. Harper of Villa Grove on the **Surgery of Empyema,** which was discussed by the various members present. Also a very worthy paper was presented by John Ewing of Tuscola. Subject, **Movable Kidney.** The discussion was opened by Dr. Cyrus Rutherford of Newman.

The County Fee Bill was then read, discussed and unanimously adopted.

The above officers were elected.

The Society adjourned to the Beach House where an elegant banquet for 35 plates had been prepared by the committee in charge.

LA SALLE COUNTY MEDICAL SOCIETY.

Meetings are held annually. Membership 56

Officers.

President ..... F. A. Guthrie, La Salle
Vice President ..... C. D. Chalfant, Streator
Secretary-Treasurer.....W. A. Pike, Ottawa
Board of Censors: E. W. Weis, Ottawa; P. M. Burke, La Salle; W. S. Sterrett, Marseilles.
Public Health and Legislation: W. O. Ensign, Rutland; J. W. Pettit, Ottawa; E. P. Cook, Mendota.
Delegate to State Society.....P. M. Burke, La Salle
Alternate ..... J. F. Dicus, Streator

The fifty-first annual meeting of the La Salle County Medical Society was held at the Columbia Hotel, Streator, April 26, 1904.

After being entertained at dinner by the Streator Medical Society, the members adjourned to the hotel parlors where the following programme was presented and the papers thoroughly discussed by all present.

President's Address, W. S. Sterrett, Marseilles.

Treatment of Pneumonia, P. M. Burke, La Salle. Discussion, C. D. Chalfant, Streator, A. J. Roberts, Ottawa.

Treatment of Eczema, S. Hirsch, La Salle. Discussion, E. W. Weis, Ottawa, B. L. Bonar, Streator.

Chronic Myocarditis Occurring in Old People with Especial Reference to Treatment, E. H. Butterfield, Ottawa. Discussion, E. P. Cook, Mendota, Wm. O. Ensign, Rutland.

Treatment of Appendicitis, J. F. Crowley, La Salle. Discussion, P. M. Burke, La Salle, C. G. Wilcox, Seneca.

Report of a Case of Tetanus, T. H. Trainor, Streator. Discussion, J. A. Dicus, Streator, R. W. Bower, Sheridan.

Necrological Report, A. J. Roberts, Ottawa.

Medical Organization, Wm. O. Ensign, Rutland. Discussion, General.

The committee appointed at the last meeting to revise the constitution and by-laws reported and their report was adopted.

The applications for membership of Drs. Theresa Jennings, C. G. Reno, H. C. Hill and Roy Sexton of Streator and R. C. Fullenwider of La Salle, were received and on report of the Board of Censors, the Secretary was authorized to cast the ballot of the Society for their election.

A committee on resolutions composed of Drs. J. F. Dicus, J. W. Pettit and P. M. Burke was

appointed to prepare resolutions of respect to the memory of our deceased brothers, Drs. J. O. Stout, J. J. Taylor and C. E. Farnham, who died during the past year.

The committee appointed to nominate officers for the ensuing year reported and the above were elected.

On motion of Dr. Ensign it was decided that the next annual meeting of the Society should be held at Rutland.

Meeting adjourned.

JO DAVIESS COUNTY MEDICAL SOCIETY.

Officers.

President ..... T. J. Stafford, Stockton
Vice President ..... A. F. Bucknam, Warren
Secretary-Treasurer.....D. G. Smith, Elizabeth
Board of Censors: John C. Hancock; W. S. Lewis, East Dubuque; S. G. Kreider, Lena.
Delegate to State Meeting.....I. C. Smith, Stockton

The Jo Daviess County Medical Society met in Dr. Cyibulka's offices at Warren, April 28, 1904, with the following present: Drs. Stafford, Tyrrell, Smith, I. C., Eade, Lewis, Smith, D. G., Buckingham, Keller, Phillips, Cyibulka, Kreider, Hancock, Nadig, Birkbeck, Barber, with Dr. H. B. Gratiot of Dubuque, Ia., W. E. Clay, Pearl City and N. A. Kaa of Nora, as visitors.

Applications from L. Jacobs of East Dubuque and H. B. Gratiot of Dubuque, were received.

The Auditing Committee after examining the books reported everything paid and a balance of $28.32 in the treasury.

The election of officers for the coming year resulted as above.

Dr. J. C. Hancock read a very interesting paper on **The Importance of Early Diagnosis and Treatment of Gall Stones.**

Dr. Cyibulka read notes on **Personal Experience with Some Diabetic Cases.** These two subjects were discussed by the various members present.

Dr. Hancock, in behalf of the Dubuque Medical Society, invited this Society to meet with them at their annual meeting in Dubuque, June 21, 1904, also that this Society should have access to the Medical Library recently established by their Society.

Galena was selected as the next place of meeting for July 28, 1904.

MACOUPIN COUNTY MEDICAL SOCIETY.

Regular meetings are held semi-annually the third Tuesday of April and October. Membership 35.

Officers.

President ..... S. A. Huffman, Chesterfield
Vice President ..... E. A. Bleuler, Carlinville
Secretary-Treas....J. Palmer Matthews, Carlinville

The Macoupin County Medical Society met in regular annual meeting in the Masonic Reading room at 10:30 a. m., S. H. Corr, in the chair.

The following members were present: L. H. Corr, J. P. and J. Palmer Matthews, J. S. Collins, E. A. Bleuler and J. P. Denby of Carlinville, R. S. Cowan, G. E. Hill and W. W. VanWormer of Girard and S. A. Huffman of Chesterfield.

The treasurer's report showed $5.80 in the treasury. Letters from A. T. Bartlett of Virden and J. E. Walton of Medora were read.

The report from the treasurer showed that 28 members of our Society were in good standing, having paid their State dues. There are 7 old members who are not affiliated, and 26 doctors in the County not affiliated in any society.

The Censors reported Girard the next place of meeting. Officers were elected as above.

The programme follows:

Essay, Dr. Thompson, subject **Hyper-Chlorhydria,** continued from last meeting.

Essay, J. E. Walton, subject, **Obstetrics.**

Essay, H. H. Simmons, continued from last meeting.

J. P. Matthews reported two cases of **Gunshot Wound of Head:** Several years ago a child was shot in center of forehead by brother. Was unconscious for a few hours. Seemed to recover consciousness and left town for St. Louis, where further record of the case was lost. Recovery took place at last report.

Case of J. P., aged 45. Sept. 5, 1902. Received gunshot wound of the frontal bone. Where the ball passed through the brain substance to the back of the skull. Splinters of bone were removed and the wound healed up under proper asepsis and drainage. The patient is now seemingly in perfect health.

In the history of the War of the Rebellion, Surgical Volume No. 1, gives a history of a number of balls lodging in the brain, with partial disability. Only two reported with complete recovery.

Dr. Cowan of Girard relates of a case ten years ago of a penetration of the temporal bone with a ball causing some deafness.

After the dinner hour a report was made of cases treated with the X-ray and radium by J. Palmer Matthews, student in the school of Dr. Hebar Robarts, St. Louis. The Cathode Ray was discovered by Dr. Rontgen of Wurzburg. It is a species of energy having the property of penetrating substances that are ordinarily opaque, and affecting an ordinary photographic plate. It is generated by passing an electric current through a highly exhausted vaccuum tube, Crooks tube.

The rays are invisible and are given off in the ultra-violent region of the spectrum. Because of the shortness of the wave lengths it is invisible. It has the power of making a fluorescence on coming in contact with tungstate of Calcium smeared on a screen of cardboard.

Radium, discovered by Madam Curre in France in 1899, is a gas given off from pitch blende and unites with bromide to form a white precipitate of bromide or radium. The fluorescent light given off is of short wave length, seen in the ultra-violet region of the spectrum and is invisible. But it will produce a fluorescence on a screen of tungstate of Calcium after passing through a steel door of a safe.

Radio activity may be imported to metals and water by coming in contact with air laden with radium emanations.

This radio activity gives off a phosphorescent glow like fox-fire when in the presence of the fluroscope and like the X-Ray it will heal cancers and eczemas of the skin.

Radium does not lose weight by imparting its activity to other substances. The waters of

Hot Springs, Ark., are being investigated by the government for healing properties in radio-activity.

Two cases of eczema are convalescent and one cancer cured and another improved after repeated exposures to the X-Ray.

Dr. Collins said cases should be brought before the Society for inspection. Dr. Pitt Matthews and Dr. Corr said the old custom should be revived, which has been allowed to lapse by the neglect of the younger members.

Dr. W. W. VanWormer of Girard, read a paper on **Poisons of the Commoner Kind.** Detection and treatment. He gave a resume of standard observers in the treatment of poisoning with suicidal intent.

There is little time to prepare for the emergency cases to whom you are called at the most inopportune times.

If you do not succeed in restoring the patient to health, the family berates you and the ignorant neighbors make covert remarks about your professional skill.

A physician who has spent more time analyzing and treating poisons than any doctor in central Illinois, said: "There is nothing so fascinating and repulsive and disgusting as treating suicides by drugs. Few physicians know how to treat poisons. The habit of walking and beating the patient addicted to morphine with towels only tends to wear out the strength of the patients heart tending to produce fatal result. As many have been beaten into exhaustion as have been benefited."

These views are the antithesis of our accepted ideas regarding poisoning by morphine. Pain inflicted on the patient is the best antidote to the lethargy of morphine.

The odor of chloroform is distinctive as is also that of carbolic acid. The burns and blisters of the oral cavity is convincing proof of carbolic acid poisoning.

Morphine gives a picture of quiet sleep, difficult to arouse, and contracted pupils.

Strychnine produces convulsions that come and go with frothing at the mouth to be differentiated from epilepsy.

Chloral bromides are like morphine in their action except that they are not so dangerous. The coma is not so deep and the condition responds more readily to treatment.

Cocain Hydrochlorate is seldom used with suicidal intent. It causes exhileration in small doses and the patient remains conscious even under large doses, but has sterteorous breathing, resembling paroxysms of asthma.

Belladonna causes utter relaxation, sighing respiration, dilated pupils, clammy skin and incoherent talk.

Whiskey causes delirium tremens, and is well known. There is a mid ground between a common drunk and delirium tremens where the breath is alcoholic, skin hot to the touch, pulse from 110 to 140, mind clear with a look of dread on the face. There is usually a history of sudden stopping of drinking. Bowels inactive, and tongue furred with tender liver area. Keep the patient quiet with hyosciamine hypodermically 1-100 gr. every three hours.

Treatment of Poisons: Evacuate the stomach immediately with a hypodermic of apomorphine 1-10 gr. Use the stomach pump when handy. Then establish respiration and circulation. Bare the skin of the chest and dash on cold water. If this does not suffice flick with corner of cold wet towel. Then try artificial respiration as in a drowning case. A hypodermic of strychnine may be used 1-30 gr. over the heart.

The antidote of morphine is permanganate of potash. Wash out the stomach. Give apomorphine and strychnine. Flick with cold water. Use electric battery. Use artificial respiration. Keep the patient awake by making him mad. Give coffee, and when the patient is aroused give a quick cathartic.

For carbolic acid the antidote is alcohol or epsom salts.

The antidote for strychnine is morphine and chloroform to control convulsions.

Cocaine has no antidote.

Chloral and Bromides, as knock-out drops are not fatal.

Simple tests: Morphine with nitric acid gives off an orange red color.

Strychnine with sulphuric acid is oxidized into a purple streak when Bichromate of potash is drawn through it. Cocain precipitated with silver nitrate which is insoluble with nitric acid. Chloroform is well known by its odor.

Belladonna is a mydriatic.

Carbolic acid gives a purple color in the presence of Ferric chloride.

Chloral heated with caustic potash gives odor of chloroform.

The paper was, on motion, accepted as a contribution by the Society and was discussed by all members present.

Dr. L. H. Corr gave a valedictory address and spoke of a history of the Society, which she had written and was now ready to be published.

Dr. Pitt Matthews was appointed to escort the newly elected President, Dr. Huffman to the chair.

The Society then adjourned to meet at Girard on the third Tuesday in October, 1904.

SANGAMON COUNTY MEDICAL SOCIETY.

Regular meetings are held in Springfield the second Monday of each month at 8 p. m.
Membership 73.

Officers.

President ..... R. R. Griffith, Springfield
Vice President ..... S. E. Munson, Springfield
Secretary-Treasurer ..... C. P. Colby, Springfield
Directors, W. O. Langdon, R. D. Berry, C. R. Spicer

The Society held its regular monthly meeting Monday evening, May 9th, in the Supervisor's room, President B. B. Griffith in the chair, and 14 members present.

Minutes of last meeting read and approved.

Bills amounting to $4.26 read and ordered paid. Secretary was instructed to see Dr. P. L. Taylor in regard to an old bill of the Illinois

State Journal for notices printed in 1902 and 1903 and if not paid the treasurer was instructed to pay same.

President B. B. Griffith was elected as delegate to attend State Society meeting at Blooming. Dr. Kreider made a motion that if Dr. Griffith was unable to attend the meeting, he should appoint some one that could, so as our Society would be sure to be represented. Motion carried. Dr. Kreider moved that Dr. Griffith extend an invitation to the State Society to meet in Springfield next year as the guests of our County Society. After some discussion motion was carried.

President appointed Drs. A. L. Brittin, E. E. Hagler and C. S. Nelson as a committee to draw up resolutions on Dr. Kerr's death.

Dr. E. E. Hagler read a paper on **Laryngeal and Ear Tuberculosis.**

Abstract. Laryngists, the past twenty years, have differed on the question whether tubercular laryngitis is a primary or secondary disease. The foremost authorities first thought it a secondary affection of pulmonary tuberculosis. Latterly the consensus of opinion is that tubercular laryngitis may affect the larynx primarily. The clinical history of tuberculosis is of more importance in the establishment of a diagnosis than the finding of bacilli in the sputum. This is particularly true in the diagnosis of throat cases. The laryngist frequently has opportunity to see the throat before the disease has made dangerous progress. He can examine the throat in the first stages of the disease. In some cases the anaesthetic throat is almost a sure sign of tuberculosis. Cases were cited in illustration.

Many cases of catarrhal inflammation of the lungs begin in the larynx. Among the laity it is generally believed that catarrhal affections tend to "go down." Quacks take advantage of this belief in vaunting their nostrum. There is a particle of truth in this theory. Since catarrhal affections predispose to pulmonary affections.

The latter part of the paper was devoted to a discussion of tubercular glands of the neck, and their origin. Several cases were cited in illustration. The writer closed by calling attention to the great importance of a careful examination of the throat in every case of cough or pulmonary disease.

Dr. C. R. Spicer read a paper on **Tuberculosis of Children,** a synopsis of which follows:

The peculiar environment, special anatomy and marked susceptibility of children to diseases is so different from the same conditions occuring in adults that it merits special attention. When we think of a child born of a tuberculous mother, or fed upon milk from a tuberculous cow, or crawling about the floor and putting into its mouth toys or any particles of dirt it may find, or later when it runs the gauntlet of the infectious diseases with their depleting influences, it becomes at once apparent why a child is prone to tubercular infection.

Except pneumonia and gastro-enteritis, tuberculosis is responsible for more deaths in children under ten years of age than any other disease. The specific cause of tuberculosis is definitely settled. The modes of entrance of the bacillus into the system are many, but some of the best authorities believe that it most frequently gains entrance through the alimentary tract, because the mortality was highest at the age when children live on milk, namely, during the first and second years of life. Holt shows that 57 per cent of children dying of tuberculosis die in the first year while 39 per cent die in the second year. Northrup of New York in 1898 read a paper before the Philadelphia Pediatric Society in which he endeavored to prove that the most common source of tubercular infection in children was by the respiratory tract. Dr. Geo. F. Still, of London, in 1899, read a paper before the British Medical Association and confirmed the claims of Northrup. He found that the number of primary lesions of the lungs was much greater than the primary lesions of the intestinal tract. Granting that Still may be right, it does not necessarily follow that those in the lungs and bronchial glands were produced by bacilli inhaled. Weigert, many years ago, pointed out that bacilli were probably carried by the lymphatics to the thoracic duct and thence to the thoracic cavity which in a way is screened by the bronchial glands, and as Still asserts is often a source of distribution to the lungs by contiguity and to the meninges via the circulation. It is the general opinion that bovine tuberculosis is very rarely if ever transmitted to the human. It therefore seems logical to conclude that the most frequent means of infection is by the respiratory tract from infectious material inhaled or put there by the patient himself. That the disease is most common during the second year of life when the child has the best opportunity for such infection, from creeping on the floor, from its habit of putting everything possible into its mouth, and by close association with parents and others who may be infected. Furthermore that they are not likely to be infected from milk from tuberculous cows. Measles, whooping cough and pneumonia are the diseases most likely to be followed by tuberculosis. The principal differences in the pathology of phthisis in children from those of adults are, first, that the primary lesions in the lungs is at their base and can often be traced to an extension from the bronchial glands which are almost always involved. The second difference is the distribution of the lesions over the lungs. Instead of finding a large consolidated area or cavity, one more often finds multiple small cheesy areas or abscesses. It is not at all uncommon to find these nodules in the liver, kidney, brain or spleen and the frequency with which the meninges are involved is interesting to note as that is often the first clinical hint as to the true nature of a chain of puzzling symptoms. The symptoms of phthisis in young children are many and varied; but they may be called into groups according to the manner in which the case begins. Namely, primary, secondary and fibroid phthisis. In the primary form the onset is insidious. The first to attract attention in the patient may be the nutrition. The appetite is apt to become capricious or even if it remains good the child may be noticed

to lose weight. The cough which may not begin for some weeks, may be dry and even after the child has begun to raise considerable sputum cause little alarm to the parents as the sputum in children under six or seven is usually swallowed. The respirations may be noticed, fairly early, to be somewhat quickened. Niemeyer noted that a sudden increase in frequency in respirations, where other signs of pneumonia are absent is usually an indication of a marked extension of a tubercular process. Later in the case, if the patient be young, there is diarrhea with much mucous and green stools. This form of phthisis usually lasts from twelve to eighteen months according to the resistance of the patient. Death is usually due to exhaustion, meningitis or pneumonia. The secondary or pneumonic form may follow a broncho-pneumonia or begin with a catarrh. The third variety may be a sequel to an unresolved lobar pneumonia or an ordinary broncho-pneumonia. In either case there is a contraction of the lung tissue with induration and thickening of the bronchial tubes resulting in their dilatation. As in adults much fetid sputum is raised and the case may become very chronic. The temperature often remains normal or nearly so. Death when it occurs is due to exhaustion, not infrequently however, these cases recover in a way, with more or less deformity of chest. The prognosis depends largely upon the type of the disease in question. The primary cases are almost always fatal sooner or later. In cases secondary to pneumonia recovery often takes place if the patient be robust. Fibroid phthisis is the slowest process and is the form most apt to recover.

The diagnosis of pulmonary phthisis in children is usually difficult and often impossible until the case is well advanced. This is due largely to the great diversity of symptoms and their failure to form a definite clinical picture. In one case there may be a marked anorexia and wasting, in another the appetite may remain good even with a temperature of 101° or 102° and no apparent wasting. The cough may come early or late or scarcely at all. In primary phthisis the general symptoms usually precede the special. There is wasting, fever and general debility and finally a cough and physical signs. In pneumonic phthisis the reverse is the case, there may be shortness of breath only, and the process well advanced before wasting is noticed. In fibroid phthisis the cough is the principal early symptom. The physical signs of phthisis in children are often puzzling and as difficult to interpret as the symptoms. Great care and repeated examinations are necessary. In making a diagnosis of phthisis in children the history and general symptoms are of most importance. The family history, exposure by contact, the fact that the illness in question follows measles, pertussis or pneumonia are of great importance. If to any of the above conditions there may be added wasting without an apparent cause, and loss of vitality, tuberculosis should be strongly suspected. The use of tuberculin is strongly advocated by some, where sputum can be obtained the bacilli can be demonstrated in the usual manner. The treatment of phthisis in children is much the same as in adults.

A discussion of both papers followed.

Dr. Geo. N. Kreider presented a specimen of **Tuberculosis of Kidney,** also one of **Carcinoma of Hepatic Flexure of Colon** and reported a case of **Caesarian Section.** The woman less than two years ago was delivered by perforation. This time Caesarian was early advised, but she refused until she had been in labor quite a while with no progress. She finally consented to the operation and was delivered of a 9½ pound boy on 21st of April, and both patients are doing nicely.

Dr. J. N. Dixon reported a case of Caesarian Section at our April meeting. A primipara, aged 30 years, had been in labor more than 24 hours when he first saw her and the attending physician had endeavored in every way possible to deliver her. On Dr. Dixon's examination he found the pelvis markedly contracted and the head not engaged, and the woman nearly exhausted; operation accepted. Owing to exhaustion the patient died.

Adjourned.

CAMP FOR PHTHISIS CURE TO BE OPENED AT OTTAWA.

Poor Tuberculosis Patients of Chicago Will Be Given Treatment in Experiment to Secure State Hospital.

A camp for thirty tuberculosis patients from congested districts of Chicago will be opened this week at Ottawa, Ill., Dr. J. W. Pettit of that city is its founder. Residents of Ottawa have given the use of the ground free and have made subscriptions

A number of applications for admittance have been received. Only such patients as will agree to remain there until cured will be accepted. The cost to applicants will not exceed $18 a month. The camp will be maintained winter and summer. A large tent is to be used for a dining room, and the cooking will be done upon the premises. A dairy nearby will supply the milk and butter.

"The camp will virtually be self-supporting," said Dr. William E. Quine, president of the Illinois State Medical society. "Its object is to help poor patients. Work will be given to them if they desire it in order to help them pay their own expenses. This camp is to be modeled after similar institutions in the east, which have proved successful. We intend to make a complete report of its accomplishments during the first year, and present a bill before the legislature for the establishment of state hospitals for consumptives throughout Illinois."

SALE.

Owing to the death of my husband and coworker, Dr. Chas. J. Cooper, I will sell my practice of $3,400 per year, also drugs and office fixtures for $800. A fine country location. Rachel M. Cooper, M. D., Champaign Co. Penfield, Ill.

The Illinois Medical Journal.

Special Section Containing Official Reports of the Chicago (Cook County) Medical Society and its Branches.

OFFICERS:

R. B. PREBLE, 103 State Street.... ..... President
FRANK X. WALLS, 4307 Ellis Avenue. ..... Secretary
A. E. HALSTEAD, 2937 Indiana Avenue..... ..... Treasurer
W. A. EVANS, 103 State Street . ..... Chairman Medicolegal Committee
WM. HARSHA, 103 State Street ....Chairman Membership Committee

JUNE, 1904.

A regular meeting was held May 4, 1904, with the president, Dr. R. B. Preble, in the chair.

Dr. Daniel N. Eisendrath presented the following clinical cases:

Cervical Rib.

Case 1. The first case I desire to present is one of great rarity, inasmuch as it is not frequently found during life. There have been quite a number of cases reported in which it has been found at autopsy but there are only 32 cases so far as I can find in which a cervical rib was diagnosed or described during life. The patient is a woman 51 years of age, who came to me on account of an entirely different affection, namely, an affection of the breasts, which led me to examine the neighboring lymph glands. I examined her in the supraclavicular region and was positive for a moment that we had a mass of carcinomatous glands, but upon pressing a little deeper I found, instead of a bunch of glands, what seemed to be a hard bony substance, which apparently passed back toward the spine.

As regards the origin of cervical ribs, a cervical rib is supposed to be due to an unusual development of the anterior tubercle of the transverse process of the last cervical vertebra. It can be of different lengths. In the first place, it can be rudimentary, so that it is simply a projection from the body of the vertebra; secondly, it may be an inch or so in length and be free, as in the case I show you. Thirdly, there is a form in which it is apparently connected by means of a ligament to the first rib. Fourthly, a form in which the end of the cervical rib articulates directly with the first thoracic rib. I will pass around a skiagraph which shows a cervical rib apparently two and a half inches in length, and I should judge from palpation one connected by a ligament with the first thoracic rib.

The chief points of interest in regard to cases of cervical ribs are these: The chief point of clinical interest is the relation of the subclavian artery and the relation of the brachial plexus to the rib. Many times such ribs, with abnormal pulsation of the subclavian artery, have been mistaken for aneurysms, and there have been a number of cases reported in which the brachial plexus passing between the the cervical rib and the first thoracic rib was considerably pressed upon to such an extent as to give rise to severe neuralgic pains in the upper extremity, necessitating the removal of the rib. There have also been several cases reported in which the subclavian artery, instead of (as it frequently does in a short cervical rib) passing across the surface of the rib, passes between the thoracic rib and cervical rib, with pressure upon the subclavian vein, followed by thrombosis of the artery and of the subclavian vein which necessitates removal of the rib.

Case of Crushing Injury of the Upper Extremity.

Case 2. Unfortunately I was not able to have the second case come here tonight in person, but I have photographs which, for practical purposes, serve to illustrate the chief points in the case. This patient was a boy, who, at the time I first saw him, was 16 years of age. He sustained an accident in one of the foundries of the American Bridge Company by having a large girder of a bridge, which was in process of transportation from one portion of the foundry to another, fall upon his left upper extremity. Three men were killed by the falling of this girder at that time. The boy was brought to the Cook County Hospital, where I operated upon him. The first impression I received from an examination of the arm was that it was a case which clearly indicated amputation. The extent of the injuries were: a fracture of the humerus to such an extent that there was an entire absence of two inches of the shaft of the humerus at its center. In addition to that, there were a large number of splinters, one or two large fragments lying free in the bone. There was extensive destruction of the soft parts. I found also a compound comminuted fracture of both bones of the forearm. Considering what a loss it would be to the boy if the upper extremity was amputated, I thought we would make an effort, at least, to save it, although it seemed hopeless. We wired the humerus, simply using a portion of the cortex of the bone, which I thought would not hold. The upper fragment was drilled, and by means of silver wire it was united with the main portion of the shaft of the lower fragment. After taking away a number of pieces of the bones of the forearm, I found that there was extensive destruction of the soft parts, such as would ordin-

arily indicate an amputation—destruction of the tendons and muscles, and, so far as I could determine, practically all of the arteries and nerves, and only a small strip of skin, scarcely an inch and a half in width, being left, everything else being torn away. We wired both bones of the forearm. The result which I was able to get after the injury was a most remarkable restoration of the arm. We found we were able to save the arm below the elbow joint, but had debated for a time whether we would not have to amputate the forearm some three or four weeks after the original injury on account of sloughing of the soft parts; but through care on the part of the house surgeons, Dr. Cubbins and Lespinasse, we were able to save the entire upper extremity. A skiagraph shows the wire in the humerus still in place: and although there was two inches of shortening, we secured an excellent result. The forearm does not show traces of fracture having been present, except in the radius where there is non-union, and one bone is longer than the other, on account of rapid growth of the epiphysis.

The photographs, which I will pass around, with this skiagraph show very well how, by securing primary union in this extensive injury, at least in the main portion of the humerus, we were able to save the entire upper extremity. The boy now is able to raise his arm in all directions and to lift light weights. I regard it as a far better arm than we would have secured with a hook.

The case illustrates what one can accomplish by cleaning up these cases thoroughly in the first instance, and taking out, for instance, in a case of compound fracture the ends of the bone, cutting them off, and wiring them, although secondarily the wires came away. In this way we can probably save many of those cases in which amputation would be indicated.

Bilateral Inguinal and Femoral Herniae.

Case 3. The third case I wish to show is interesting to surgeons, on account of its comparative rarity. This gentleman is 62 years of age, and was sent to me recently on account of an unusual combination of herniae. He has, as this photograph shows, and as the patient himself, an unusual combination of femoral and inguinal on the opposite side. The femoral hernia is of some interest, on account of the fact that it is irreducible and has given rise to symptoms of strangulation several times.

Crushing Injury of the Abdominal Wall.

Case 4. The next case of hernia is one of unusual interest owing to the fact that it was a case which belongs to the class of what are known as subcutaneous injuries of the abdominal wall and viscera.

This man was admitted to my service at the Cook County Hospital almost a year ago, June 1, 1903. The old type of street-car afforded considerable space between cars, but in the newer type of street cars the car projects so far over the edge of the track (I am referring now to the new 60-foot cars) that it only leaves a space of about nine or ten inches, so that a great many people, in order to protect themselves against injury, will get between the cars. This man and his companion tried to save themselves at Polk and Clark streets in 1903, by getting between the cars. His companion was brought to the hospital dead, while he was suffering greatly from shock. Credit for the diagnosis in this case belongs to my house surgeon at that time, Dr. Snyder, as he was the first to make a diagnosis of traumatic hernia. The condition in which I found the man that evening was this: just below the crest of the ilium there was a tumor about the size of two fists, which was very soft, tynpanitic on percussion, and which could be reduced, with a gurgle like a typical hernia. When it was reduced one could easily insert the tips of the four fingers into the gap Dr. Snyder proved to be correct. I thought at in the abdominal wall. The diagnosis made by first it was only a hernia through the triangle of Petit, but in operating the next day we found the following condition: the skin was perfect, with the exception of a few hematomata. After making an incision and extending it to the middle of Poupart's ligament, we found the following condition of affairs: Every single one of the abdominal muscles, the external and internal oblique, the transversalis fascia, and peritoneum were torn off from the crest of the ilium back as far as the erector spinae and down as far along Poupart's ligament as the internal abdominal ring. There was loose omentum lying in the abdominal cavity, and there was contusion of the cecum. I was at a loss to know how to repair this large defect exactly. The only way I could think of to repairing it was to drill a number of holes into the chest of the ilium, and either with silver wire or with kangaroo tendon bring down the muscle to the crest of the ilium; but I decided this would take too long, probably an hour and a half, and the patient was not in a condition to warrant it. I therefore made use of the gluteal fascia, taking kangaroo tendon sutures, bringing them through in mattress fashion, catching a big bunch of these muscles, bring them down, and suturing them to the fascia. In this way I placed fourteen kangaroo tendon sutures, which extended from the middle of Poupart's ligament back to the erector spinae. Fortunately, we were able to get primary union. Patient had, in addition to the injuries mentioned, a pneumothorax, with fracture of the fifth and sixth ribs and a fracture of the clavicle.

He has been at work for the last few months. After the injury he developed something of considerable interest to surgeons and concerning which there is considerable question at the present time, not so much in this country as in Europe, namely, the origin of inguinal hernia after an injury, whether a hernia can originate after an injury or not. In this case, where there was a tremendous crushing force, dilating the ring, squeezing the peritoneum, there is a possibility that the hernia occurred in that way. The picture shows where the hernia was. It is on the left side and of the inguinal type.

Fractures of the Os Calcis.

Case 5. I wish to pass around two skiagraphs. Unfortunately, I was unable to get one of the patients to come here tonight, and the other patient has left my charge. For this skia-

graph I am indebted to Dr. McLeod, of South Chicago. The findings at the operation in my case were identical with those observed in the case of Dr. McLeod. My patient was a woman, fifty-five years of age, who had been wearing the fashionable French heel. As she was stepping from her carriage on to the stepping-stone, another horse ran into her horse, and threw her backwards. Her foot was caught as if in a vise by the heel fitting exactly into a groove. The heel was torn off from the shoe. She undoubtedly fell forward, and then backward. In Dr. McLeod's case the woman fell with the heel going through a hole in the sidewalk. The skiagraph shows what has been scarcely described, namely, a fracture of the os calcis by indirect violence. The os calcis was torn in two by the force of the fall; the tendo-Achilles pulled the upper portion of the os calcis in the direction I show you, and the lower portion remained attached to the astragalus and other bones of the heel. This skiagraph is exceptionally clear. At the time of my original examination all I could find was a little projection which threatened discoloration of the skin, and would have increased through the skin within a few hours, and that was the reason we had to hurry to operate on her. We had no X-Ray taken at the time. We found at the time of the operation that the little short fragment was carried upward by the tendo-Achilles, and the operation in brief consisted simply in suturing the parts together with kangaroo tendon, and suturing the tendo-Achilles, which was torn loose, with kangaroo tendon.

Dr. J. B. Sachs read a paper on Tuberculosis in the Jewish Districts of Chicago. (This paper has not been received.)

Discussion on Paper of Dr. Sachs.

Dr. Robert H. Babcock: This very interesting paper represents a large amount of work on the part of Dr. Sachs, and I personally feel indebted to him for presenting views which I consider of positive value. The paper is so rich in suggestions, that it is practically impossible to know where to begin or what comment to make upon any of them. I wish to say, however, that I am specially impressed with that portion of the paper in which the doctor says that the so-called immunity on part of the Jews does not obtain, and that, in fact, the statistics which have been previously collated, going to show a lessened prevalence and mortality from this disease, are erroneous. I have personally seen a good deal of tuberculosis in a consultation way among Jews in Chicago, and it has always been impressed upon me that this disease was widely prevalent and very fatal among these people. I am glad, therefore, that the doctor emphasizes this point and brings it out so clearly as he does. I do not see how it can well be otherwise.

Tuberculosis is a house disease. It is a disease born of defective hygiene, and the poor Jews of this city are compelled to live in such a manner that it is only a wonder not more of them are affected with this disease.

Another factor in the causation of tuberculosis among the Jews is to be found, I believe, in their very commendable and well recognized economical ideas. The Jews make it a rule, I believe, whenever possible, to live within their income, and to this end they must and do of necessity curtail their needs as regards sufficient food. Moreover, their diet, is not, it seems to me, calculated to combat disease by increasing resistance, but rather to lessen it.

With reference to the doctor's recommendations, I would simply suggest that he revert them, and that instead of placing at the head of his recommendations cleaning streets, he place at the top improvement in the tenement houses or the lodging for the poor Jews of the city. Until the landlords of this city can be aroused to a realization of the deplorable state of the dwellings in which the poor of the west side live, we cannot expect any improvement in their social condition.

Dr. Arnold C. Klebs: I was very much interested in Dr. Sachs' paper, and I think he is showing us the way for investigations which are of the greatest importance in making us familiar with these social conditions which increase the prevalence of this disease.

I was astonished to hear some of the points he emphasized. My impression was the same as that of most observers in matters social and medical, that the mortality from tuberculosis among the Jews is relatively very small. I do not know how far Dr. Sachs has a right to presume that tuberculosis among the Jews is especially fatal, and that the disease is very prevalent. We have the statistics from New York, which were lately taken, which show just the contrary point of view. Properly speaking the statistics of Jews have not been taken anywhere, we have statistics of nationalities, but not of Jews as a race. Those statistics do not exist anywhere, so far as I know. The statistics of nationalities which embrace the Jews in New York, Russians, Hungarians and Poles, we find at the bottom of the list as to mortality. We have the highest rate of mortality among the negroes, 587 per 100,000. Among the chiefly Jewish nationalities, the mortality is 131 per 100,000 for the Russians, 113 for the Hungarians, and 67 for the Poles, which is the lowest on the whole list, the Irish are 428 per 100,000, the Germans 205, and the Italians 149.

An interesting fact about this matter is that the Jews live in the midst of the worst hygienic conditions and still the mortality from tuberculosis is comparatively low. It is true, that the Jews work in sweat shops and under worst conditions hygienically, from eight to nine hours a day. The balance of the time 15 to 16 hours they spend in their homes. It is notorious that the Jewish home is probably hygienically the best home of any one race. In following their religious commandments they pay considerable and regular attention to the cleanliness of the house, to bathing, etc. They take special care of their food. In a recent article I held that Moses was the great social hygienist. He gave wise directions for promoting domestic as well as individual hygiene, the results of which now show in the relative immunity of his race to tuberculosis.

There is one more point which I desire to emphasize, and which has been repeatedly emphasized by observers abroad and in this country, namely, that the rapid course of consumption is rarely observed in Jewish people. They have a long drawn out course of the disease. One very rarely sees the rapid type of "quick consumption" among the Jews. I have myself had a number of private cases of consumption among the Jews, and I have made the same observation. I have found extensive lesions in Jewish people, so extensive that I considered the prognosis very grave, yet they lived for an astonishingly long time. The explanation which I have given, whenever this subject of racial predisposition came up, was that probably the Jews were used to and had adapted themselves to the indoor life much longer than any one of the other civilized races; at a time when we were barbarians, so to speak, the Jews were used to an indoor civilization, and they have adapted themselves by measures of specific cleanliness and measures of moderation to which Dr. Babcock has alluded. Alcoholism is almost unknown among the Jews. There are no such excesses among them, which while with us, are unfortunately only too frequent. On the other hand, the fact is that the people or races that are not used to indoor life, when taken into the atmosphere of our indoor dwellings, are decimated by tuberculosis. For instance, the Negroes, the Indians, and the Bedouins are typical examples of this. They do not have tuberculosis as long as they live outdoors and lead a wild life, but as soon as they are taken indoors, they are decimated by disease. They have not acquired the same immunity against tuberculosis that the Jew has, who has had a longer time through the process of evolution to adapt himself to indoor existence, which we now know is most responsible for, or must be considered as the most important predisposing factor of tuberculosis.

Dr. Sachs spoke about the disinfection of houses as being a most important measure for the prevention of tuberculosis. I agree with him that disinfection is very important, and I wish to say in this connection that the health department is making every effort and giving us every assistance in this respect. The Committee on Tuberculosis has given them a great number of cases of tuberculosis in certain districts. There is no ordinance providing for disinfection in such cases, but the health department has promised to carry it out in every case of tuberculosis we give them. However, we must not be satisfied with disinfection alone. I would much rather have a house clean than disinfected. If we have good cleaners, who will clean a house from top to bottom, scrub and wash, boil and destroy furniture which is infected, we make a greater step forward than by the mere perfuming of the dwellings with formaldehyde.

Dr. Robert H. Babcock: While the Jews, as has been stated, do not present as great a prevalence for tuberculosis as some other races, I nevertheless believe that Dr. Sachs has shown that tuberculosis is more prevalent among the Jews than is generally believed, and he is correct, from my observations in this city.

I am very much interested in Dr. Klebs' explanation of why the Jews present a less prevalence to this disease than other races; but I must say that personally, with all due respect to my friend, Klebs, I attach much more importance to the fact that the Jews, as a people, are more orderly and less given to dissipation than I do to the fact that they have become innured to indoor life. Dr. Klebs admitted that alcoholism was nothing like so prevalent among the Jews as among the Irish, Negroes, and others, who are notoriously smitten by tuberculosis, and I believe that the reason the native races, as the Indians, become so markedly tuberculous when they adopt the ways of civilized man, is not because they live in doors so much, as because they adopt the vicious habits of the civilized, and it is these vicious habits which offset the beneficial effect of any outdoor life they had previously been accustomed to.

Dr. I. A. Abt: I enjoyed Dr. Sachs' excellent paper very much. I should like to say a word about one of the questions that came up in the discussion, namely, as to whether or not Jews are more or less susceptible to tuberculosis. I think Dr. Sachs in his paper pointed out clearly that there was a plague spot on the West Side, and that men, women and children were huddled in unhygienic homes, living under the most difficult conditions possible. They are living in homes that are infected constantly, and they are simply contracting tuberculosis in that way. Personally, I do not believe that the Jew possesses any immunity against tuberculosis, neither do I believe that he possesses any predisposition to it. It is simply a question of contact with infection, and those who are exposed fall victims to the disease.

So far as tuberculosis among children is concerned, I believe a good many of the children who are infected with the disease in the region which Dr. Sachs has described are brought to the Michael Reese Hospital. I see most of these infants and children at that institution the majority of them from acute miliary tuberculosis, the meningeal manifestation is simply a terminal condition of the acute miliary tuberculosis.

Dr. E. A. Fischkin: Tuberculosis, as a social disease, is in all probability spread by the same factors which facilitate the propagation of its pathogenic germ as other social diseases, for instances, syphilis.

About two years ago I published the report of my service in the Skin and Venereal Department of the United Hebrew Charities Dispensary, which I had been conducting for some eight years, and which lies in the district described by Dr. Sachs. To my own surprise, I found among some three thousand cases of skin diseases only twenty cases of syphilis, of which only two cases at ages over 40. Still I do not think that anybody would draw the conclusion that the poor Jew is not susceptible to syphilitic infection. I believe the same can be said in regard to tuberculosis. I believe that tuberculosis may have partly the same conditions for its spread as the bacillus of syphilis.

It has been shown tonight that poverty and especially the conditions which compel the people to live in crowded districts, are the most

important factors in the spread of tuberculosis, and one could add that the natural products of poverty, vice and crime, are of greater importance in the spread of the disease than poverty itself. Alcohol is the greatest of them. It certainly makes the disease more destructive. The worst cases of syphilis I have ever seen were among alcoholics, and I should suppose that alcoholism aggravates tuberculosis in the same way as it does syphilis.

It has been said tonight that the Jewish race has some conditions in its favor tending to stronger racial resistance. If such conditions exist, they are due to the lesser amount of vice and crime among the Jews. For my own part, I think that Dr. Klebs is right in emphasizing the fact that alcoholism as a factor in spreading disease among Jews is a comparatively unimportant one. I have never seen alcoholism among the poor Jews in my department of skin diseases.

I was very glad to hear Dr. Klebs emphasize the hygienic conditions of the homes of the Jews, and also their religious prohibitions which may be saving factors in protecting them against this disease. I wish the rich Jews who contribute so much towards the charities could be given to understand this and what men like Dr. Klebs and other leading physicians say with reference to religious conditions of the Jews.

There is unfortunately a tendency to counteract the religious prohibitions among the poor Jews, and to compel the sick inmates of these institutions to break their dietary laws. This is a mistake. In the hospital, and in the sanitariums, they ought not to infringe upon religious views. The poor Jew should not be compelled to give up his religious customs. They are the best guides of morality. They have been the forces which have saved him from extermination, through centuries of persecution and enforced social and hygienic misery.

Dr. Aria Louis Derdiger: The ground has been so thoroughly covered by Dr. Sachs in his paper that there is very little left to be said. However, there is one point that occurred to me that might be a valuable addition to the discussion, and that is, that the Jews as a whole are not under-fed, but rather inclined to be over-fed, and will always make an effort to have good substantial food.

We know that the treatment of tuberculosis mainly consists in proper hygiene and good food, and that is one of the points I particularly wish to emphasize.

Another point is this: Whenever there is anything wrong with the poor Jew, he is more apt to consult a physician sooner than a Gentile. Furthermore, we must also take into consideration, without being personal, that the Jews are not believers in Christian Science, or any other ism that comes along. They will follow out the instructions of a physician to the letter, and the latter will have full opportunity to try his various remedies, as well as climate, as has been mentioned by some of the speakers. They go to seek pure air, and wherever they can find a place that will benefit them, they are likely to go.

With reference to resistance, it is true, that when we prescribe medicine, we do not want whiskey, or other stimulants, mixed up with it. We want to distinguish our results, and that is one point we shall find in our favor in prescribing medicine for the Jewish people. As a whole, I do not believe we find among them as many who use that beverage (whiskey) as among other nationalities. Of course, the Jews are not entirely exempt from indulgence in liquor.

With reference to heredity, it has been suggested that the Jews are more accustomed to indoor life than the people of any other nationality, and hence less susceptible to tuberculosis. As to that, I can hardly see why that should render them more immune to the disease. I should rather say the reverse. In their earlier days from the time of the Babylonians and Egyptians the Jews, as we well know lead a pastoral life. They roamed in the wilderness, and they filled their lungs with pure air before there were factories emitting smoke and modern machinery to give them employment indoors. This we shall find to be true by carefully reading history. The Jews are not fond of farming, it is true, but they are found in every other industry. So if there is anything at all in heredity, that would seem a better explanation than to say that their superior resistance is due to their habit of living indoors.

Lastly, I wish to say, that we medical men ought to take a little more interest in politics and look after certain politicians. We are doing a grand work, it is true, by standing together as a body, but we should try and influence some of our eminently capable professional medical men to take a hand in actual politics and give us a better administration, so that we may have cleaner streets and better hygiene for those people who are not educated and do not understand the dangers of the conditions that confront us.

Dr. Alice Hamilton: I did not expect to be called upon to say anything on this subject. I am a little surprised at the results of these investigations. The most significant thing in connection with the figures presented by Dr. Sachs seems to me to be the small number of Jews who die at a time when most people do die of tuberculosis, that is, between the ages of fifteen and fifty. I do not remember the exact figures he gave, but if I remember rightly, the mortality was very low.

With reference to what was said regarding the hygienic conditions among the Jews, they are unusually good, with the exception of the places in which they work. These places are even more crowded than those in which other nationalities work. They are crowded together in small factories, and they spend a larger part of their time in them; their hours are long, and the poor conditions in that respect go far to counteract the good hygienic conditions, so far as schools go, tenements, absence of alcholism, etc.

A regular meeting was held May 11, 1904.

Case of Thoracoplasty.

Dr. Emil Ries: Mr. President.—The first patient I wish to present is a young man, 22 years of age, upon whom I performed thoraco-

plasty. He was taken sick with acute pneumonia at the age of seventeen years. He was sick several months, then had three abscesses, two of which opened in the sixth and seventh intercostal spaces. A third abscess opened later on in the second intercostal space. These abscesses continued to discharge pus freely, although the upper opening would close at times, and the patient had to wear a dressing constantly, which was always soaked with pus. He lost flesh; he became pale. In the course of these five years considerable curvature of the spine took place, so that the patient walked stooping over to the left side. This curvature straightened out to a certain extent, but has not disappeared entirely. He came to me in December of last year, when the following conditions presented themselves: We found a young man, who, although 22 years of age, did not look older than a boy of seventeen. In other words, his development had stopped from the time of the onset of his disease until I saw him. He had a subfebrile temperature; pulse 96; urine normal; slight edema around the ankles; varicose veins on the legs. His abdominal organs were normal. The whole disturbance was located in the chest.

We found considerable enlargement of the fingers, the so-called clubbed fingers, which were a little bluish, and which you can see yet to a certain extent, but they are not now as pronounced as they were then. His left side was somewhat flat in comparison with the right. Over the left shoulder he presented bluish varicose veins. He had an opening in the second intercostal space from which there was a discharge of a yellow, foul-smelling pus. There was an opening in the seventh, and another in the sixth intercostal spaces, which appear higher up now on account of the operation. On the left side there was complete dullness, and absence of respiratory sounds. The heart beat was on the right side extending as far as the right mammillary line. The right lung normal. It was evident we had to deal with empyema. From the acute onset of the disease, and from the absolutely intact condition of the right lung we concluded it was not a tubercular condition. I proposed extensive resection of the ribs to this young man. Operation had been proposed before I saw him. The blame is entirely on him, and not on his physicians. The physicians advised him to be operated upon repeatedly. Finally, he consented to operation. I resected the ribs from the ninth up to the second. The ribs were removed forward to the cartilage, and were twisted off at the cartilage. Posteriorly, they were removed, with the exception of short pieces which were left as a support, and the ends of which you can feel at the back. As soon as we reached the thoracic cavity an enormous amount of foul-smelling pus escaped. We encountered some difficulties in the resection because the pleura was thickened to an enormous extent. In this bottle I have some pieces of pleura I removed, and which are as thick as a finger. The pleura was removed with the ribs and intercostal muscles, so that in front nothing but a flap of soft tissue was left which collapsed easily and could be readily pressed down into the remaining chest cavity. The left lung could not be seen. I determined to do decortication, in order to give the left lung a chance to enlarge again, and I made an incision through the thickened visceral pleura at the place where I suspected I could reach the lung, dissected down to a certain extent, and came down upon the aorta. I did not dissect any farther, but left the lung alone. The soft parts were then pressed in against the visceral pleura and the remnants of the costal pleura without any drainage. In most textbooks you will find the advice is given to drain these cases. It is bad advice. Don't do it. As soon as you begin to drain you make a new fistula. You must attempt to get primary union. With a granulating surface on top of a thick pleura like this, it did not look very promising for primary union, but you can create a better condition for primary union by curetting the whole pleural surface. This we did in this case. This curetting has to be done with care, because, if you curette deeply and extensively, you may get very close to the nerves, where they leave the spinal canal, and open their lymph sheaths and get a rapid meningitis, from which the patient may die. Occasionally deaths occur in this way after these operations. We had no untoward symptoms, and after I had pushed in the soft parts I found I could put them into very good approximation, so that no dead space was left. After I had pressed in the soft parts, I had an open space extending from the end of the flap of soft parts to the ninth rib, where I began my resection. Here the pleura diaphragmatica was exposed, with no tissue to cover it at the time. I was therefore satisfied in leaving this space open for granulation for some time. At the end of the operation, which lasted eighty minutes, patient was not in very good condition, and we gave him intravenous transfusion of salt solution, and he recovered very nicely. He was able to sit up the day after the operation, and he could breathe much better sitting up than lying down. The highest temperature on the day of the operation was 102.6°; the next day it was 100°. After that the temperature did not go over 100°, until in January, when he had an attack of bronchitis, and then the temperature rose one day to 101.8°. The temperature then dropped again. After we had allowed the pleura over the diaphragm to granulate for some little time, I decided to cover the surface. Therefore, under local anesthesia I undermined the surrounding skin and brought the edges together. A radial incision was made for the purpose of detaching the skin and getting more skin with which to cover the raw surfaces. I succeeded in covering the raw surfaces almost completely. I subsequently did another plastic operation under local anesthesia, and took a flap from the skin of the back; I dissected it up and turned it over the diaphragm and covered it. The wound is now absolutely dry.

The young man has gained twenty-four pounds since the operation. As you see, he does not look pale now. He has gained in strength rapidly and is beginning to develop into a young man. His respiration is not labored. He can walk very well and works

in the garden. He has no palpitation of the heart. His appetite is excellent, and bodily condition very good.

In these cases of empyema we are cautioned to look for amyloid degeneration of the internal organs. His urine has been examined, also his organs, in order to detect the presence or abscence of amyloid degeneration, but we have not been able to find any indications of it.

I will ask the young man to walk around, so that you can look at him. I will also pass around an X-Ray picture, which shows the extent to which the ribs were resected.

The case is further interesting on account of a pathological dislocation of the clavicle. The right clavicle is dislocated upwards, and the left inwards.

There have only been five or six cases of pathological dislocation of the clavicle reported, and this is another case of this interesting condition. The dislocation of the clavicle is the consequence of the flattening of the thorax on the left side, due to the chronic empyema.

After-Treatment of Laparotomy.

Case 2. I intended to show a case illustrating the after-treatment of laparotomy, but the patient has disappointed me. However, I wish to make a few remarks on this subject. Some of you may know that I have changed the preparation and after-treatment of my laparotomy cases very materially in comparison with what most other surgeons do and what used to be done years ago, in that I have treated these cases in an ambulatory way. These patients are allowed to get up and walk around, eat and drink, shortly after the operation, and they seem to get along very well. Dr. Hardon and Dr. Bayard Holmes have reported similar cases recently as bearing upon the after-treatment of cases of appendicitis. It does not make any difference whether a small or large incision is made, what the operation was inside the addomen, I allow the patients to get up just the same. I have had no untoward results, and have had no reason the regret this after-treatment. The patients like it because their stay in the hospital is very much shortened. Instead of remaining there for three or four weeks, they can go home in two weeks or less. They go home, walking well, not stooping over. Those were patients in whose cases the abdomen had been sutured completely.

I hesitated for some time whether to do likewise with those cases which I had packed, those in which we put in a Mikulicz pack after evacuating an appendiceal abscess, or after the removal of the gall-bladder with abscess, and so on. I was doubtful whether I had better let those cases get up and about or not. For several years now I have used the same after-treatment in those cases that I pack, and I can report to you that if you do it, healing is not only just as good, but the patients are better off than if they are lying down. Healing takes place more rapidly. If you have a large cavity in the abdomen which you feel that you should pack, or if you make a large cavity by putting in a pack, it takes that cavity weeks to close, if the patient is kept on his back, particularly where there is an inflammatory mass forming the wall of the cavity, as in an appendiceal abscess. If you let the patient get up, the bowels come down from all sides, and clear out the contents of the cavity. They push towards the point of least resistance, which is the opening in the abdominal cavity, and the cavity thereby is closed and compressed much more rapidly than it would be if you made the patient keep quiet or lie still.

I had one interesting experience with a woman upon whom I operated four weeks ago. She was a very fat woman, and had a large appendiceal abscess, which was shut off from the peritoneal cavity by adhesions between the small intestine and the colon ascendens. When I cut down into the peritoneal cavity, it was opened before I reached the abscess. Before reaching the abscess I packed the free cavity and then opened into the abscess which was about eight inches below the skin surface. I determined to treat this woman after the operation the same as all others. It was not two weeks before everything came together except the fat and skin. It is now four weeks since the operation, and there is nothing but a little strip of granulation in the skin.

It is a great saving of time to carry out this after-treatment when we have to deal with such large abscesses, instead of keeping patients in bed four weeks for such large abscess cavities to heal up. This is only an additional note in the treatment of after-treatment of laparotomies.

Goitre.

Case 3. I have a goitre case to report on which I operated the day before yesterday. The goitre is interesting because it is a little larger than what we usually see in Chicago. We do not see such large goitres here as in European countries. There is nothing particularly interesting about the operation. I followed Doyen's procedure in this case. It is a colloid goitre, with various cysts.

Specimens of Gall-Bladders.

Case 4. I have here a number of gall-bladders that are interesting. A few years ago I described a condition in the gall-bladder where the ducts of the glands penetrated the muscular coat and appeared outside the muscular coat, and at that time I drew the inference that such a condition of the gall bladder would do away with the usefulness of Mayo's operation of peeling out the mucous membrane, instead of removing the whole gall-bladder. If anybody peels out the mucous membrane of the gall-bladder, he leaves the ends of the glands outside in the wall of the gall-bladder, which he leaves behind, and these glands may lead to the formation of retention cysts, possibly at least. I have followed up the subject, and you see here seven micro-scopic specimens representing six different gall-bladders, with these glands in every one. Since I have examined these cases further, I find there is a good deal more in these apparent gland ducts than I thought in the beginning. They go down through the muscular coat following the blood vessels, because these blood vessels have spaces surrounding them, where the muscular tissue is not so closely woven as

we find it in other parts of the gall-gladder. Often we have nothing but a simple glandular duct. But pretty soon I found that there was often more than a simple glandular duct round or oblong on the cross-section. I found that, instead of the simple duct, there was a cleft, a more extensive opening, and that this cleft on cross-section presented a different aspect. It presented itself in a long oval or stellate shape. In other words, we have a diverticulum of the gall-bladder invested with mucous membrane lining, with epithelium penetrating the muscular coat, and appearing not only outside the muscular coat, in the subserosa, but in the serosa itself.

I have brought three perforated gall-bladders upon which I operated. In one there is a perforation forming a fistula between the gall-bladder and duodenum. You can see some of these diverticula under the microscope. This speciment is a small, shriveled-up gall-bladder, with chronic thickening of its wall, which contained a number of small gall-stones. The woman had passed a stone the size of a hazelnut and had never been jaundiced. If she had passed a stone the size of a hazelnut from the common duct, the prabability is she would have been jaundiced, while the stone passed through the common duct.

The absence of jaundice and the presence of the fistula indicates that the stone ulcerated through into the duodenum.

I have another case which I operated on a week ago today. This is a large gall-bladder. It contained a stone the size of a pigeon's egg. The gall-bladder contained, besides the stone, pus. There was an abscess between the gall-bladder and stomach; likewise a communication between the gall-bladder and stomach, a fistula. The stomach was adherent not only to the gall-bladder, but to the liver, and the omentum was adherent to the liver. The colon was adherent to the gall-bladder. It was a complicated case, and the operation consumed approximately one hour and a half.

You will notice in this gall-bladder that the tissue in the wall that looks a little different from the other tissue, is due to an abscess which was filled with green-looking pus.

This woman I saw for the first time a year ago, during the first attack she had. I advised operation, but she would not consent to it. Eight weeks ago she had a second attack, three weeks ago a third one. She was slightly jaundiced, when she came in. We found a very large gall stone. I have not examined the gall bladder yet to see whether the fistula from the gall bladder to the stomach is due to such a diverticulum or not. The gall bladder, where the stone is located, was surrounded by adhesions and pus. But you will see the actual seat of the perforation under the microscope in a third case, where you can observe the diverticulum from the gall bladder going down into the muscularis, with a thin bar of scar tissue showing where perforation had taken place into the abdominal cavity. Two gall stones in the peritoneal cavity were surrounded by pus and adhesions forming a small abscess on the outside of the gall bladder. You will see chips of gall stones and cholesterin crystals surrounded by foreign body giant cells.

A fourth gall bladder was taken out yesterday and found to be chronically thickened. The entire operation took thirty-five minutes. Forty gall stones were found in the gall bladder. It was easy because there were few adhesions.

The patient who had this abscess between the stomach and liver is also sitting up. She has been sitting up since the first day after operation; has been feeling comfortable, and her pulse has not been over ninety since the operation.

I bring out this matter of diverticula in these cases because it is something entirely new.

Dr. F. S. Churchill read a paper on **Leukemia in Children.**

Dr. Joseph L. Miller read a paper on **Cyto-Diagnosis** with report of cases. Papers not received but the discussion follows:

Dr. James B. Herrick: The case as described by Dr. Churchill is typical of acute lymphatic leukemia, and while he modestly stated that his paper added nothing to the subject, I think a carefully studied case like this is a distinct contribution to our knowledge of a disease that is relatively rare.

It has been my fortune to see some six or eight cases of acute lymphatic leukemia, but only one of them in a child. If it is true, as Dr. Churchill tells us, that hemorrhage is uncommon in acute lymphatic leukemia in children, certainly there is one point of differentiation between the disease as it occurs in children and in adults, because petechiae are very common in acute lymphatic leukemia in adults.

I would take exception to one statement Dr. Churchill made, namely, that invariably where there is a secondary infection in acute lymphatic leukemia there is a marked fall in the leucocytes. I have seen one case in which I believe the exception to that rule was true, in which with a distinct streptococcus infection there was no fall in the leucocytes.

There is a group of cases not very frequently referred to that resembles almost perfectly acute lymphatic leukemia, with the exception that the glands are not greatly enlarged, and that there is no increase to speak of in the lymphocytes. That is a form of acute, rapidly progressive, and I believe invariably fatal, anemia—due to a septicemia, possibly more strictly a toxemia in some cases. I have seen three such cases as this. If you were to put the patient with the severe anemia and the one with a leukemia side by side, you would say from the clinical history, from the examination of the patients, the general appearance, from the course of the temperature, from the petechiae, the bleeding gums, etc., as also from the blood examination, except in so far as an actual increase in the leucocytes is concerned—that the cases are absolutely identical, except that in one the lymphatic glands are enlarged, while in the other they are not. These cases of rapidly fatal anemia give, I believe, as a rule, a distinct history of infection; at least the three I have seen gave such a history. One

had a distinct history of initial tonsillar abscess. In a second case a solitary tuberculous ulcer was found in the intestine post mortem, with a colon bacillus abscess in the kidney, and in a third a criminal abortion was followed by sepsis and the anemia.

Some one from Leube's clinic described a few years ago such a case of anemia in a child. He called attention to the fact that the only point of differentiation between lymphatic leukemia was that the lymph glands are not enlarged, and the lymphocytes only slightly relatively increased. It is well to keep this group of cases in mind, and while we have as yet no etiologic or pathologic differentiation to make between these two diseases, it is to be hoped, by studying such cases carefully, we may yet be able to have some clearer clinical picture and arrive at a more definite notion as to the etiology.

Dr. Frank S. Churchill: The very interesting paper of Dr. Miller reminds me of a case which I saw last winter in consultation with Dr. Cheney, a case of tubercular meningitis in a four year old child, where the first lumbar puncture was made about three weeks before death, but failed to show any tubercle bacilli. There was a large amount or percentage of leucocytes however. A second lumbar puncture, made a few days later, showed the presence of the tubercle bacillus, and at the autopsy a characteristic tubercular meningitis was found. A further interesting point about the case was that it was the only focus of tuberculosis in the body.

Dr. Joseph L. Miller: I wish to emphasize the point made by Dr. Herrick with regard to the frequency of finding hemorrhages or petechiae in these cases of acute leukemia in adults; and, furthermore, the frequency of ulcerative processes, especially in the mouth.

A few years ago Turck in Neusser's clinic, had never seen a case clinically of acute lymphatic leukemia, but he had seen several cases at autopsy. He stated that these cases usually came to the surgical wards on account of some suppurative process in the mouth; that they went along, were not diagnosed, and were recognized finally at the autopsy table; that the hemorrhage into the mucous membrane of the mouth, with the heat and moisture and secondary infection which took place, leads early to some ulceration in the mucous membrane of the mouth, and first attracts the attention of the patient in the absence of any marked lymphatic enlargement, leading the clinician to overlook the possibility, as he thinks, of a leukemia.

Dr. James B. Herrick: I merely wish to say that of the few cytologic examinations I have made of fluids in the chest, I have found the presence of a large number of lymphocytes, ninety to ninety-five per cent, of some help in the diagnosis of tuberculosis. Yet I feel that Dr. Miller is right when he states that we must interpret these findings with considerable caution, and only in the light of findings in other parts of the body.

Dr. Churchill: It is just before death that there is often a fall in the leucocytes. To what it is due apparently is not exactly clear. It may have been due to the action of the streptococcus in my own case. In Dr. Herrick's case an examination just before death might have shown a white drop.

All of the remarks which have been made simply emphasize one of the points which I tried to bring out in my paper, namely, the absolute importance of making a differential count of the blood in these anemic cases, especially in children. If I had made a differential count on the first day of September, at the first examination, I should have detected the condition earlier than I did. In the class of cases cited by Dr. Herrick, it is often the only way to clinch the diagnosis.

Dr. Robert B. Preble: I might make a statement in regard to the form in which these cases of acute leukemia sometimes present themselves. The first case I saw some years ago presented itself under the clinical picture of scurvy, which does not differ essentially from the condition described by both Drs. Herrick and Miller, where hemorrhages, with anemia, constitute the main phenomena. This patient was under observation for a short space of time; a diagnosis of scurvy was made, and the patient was sent to the dead-house with that diagnosis, but before an autopsy was made, blood examinations were completed, which enabled a change in the diagnosis from scurvy to acute leukemia.

Case and Exhibition of a Case of Pneumococcic Endocarditis.

Dr. Robert B. Preble: I wish to relate briefly a case of which specimens are on the table. The case is from the private practice of Dr. Geo. Butts, who after a period of three or four days sent the patient to the Wesley Hospital, from which time on he was under my care. These cases of endocarditis developing in the course of a pneumonia are not new. The literature extends back into the early portion of the last century, but the subject did not attract very much atention until the years 1885 and 1886, when Weichselbaum published a report showing that a considerable number of these cases were due to infection of the valves with pneumococci. The subject began to take on clinical interest, later when the bacteriological study of the blood made it possible for us to detect these cases clinically.

The case which we have tonight is a man, about 35 years of age, an ordinary laborer, who had been addicted to alcoholism so that when he entered the hospital on the 21st of March, he manifested rather violent delirium tremens, and upon physical examination he showed all the ordinary physical phenomena of pneumonia confined to the right lower lobe. The clinical picture was severe, and the associated delirium tremens made it unlikely that the patient would recover. After being in the hospital for three days he had a crisis, and his temperature returned to normal. He regained control of his faculties, and seemed to be doing all right. At the time of entrance he showed a leucocyte

count of 10,600. Pneumococci were present in the sputum, but not in the blood. He ran along after the crisis for four days with a normal temperature. On the ninth day after admission to the hospital, he had a chill, and his temperature arose sharply to 103°; the next morning he had another chill, and his temperature arose to 104.5°, but early in the afternoon it dropped down to practically normal again. In the evening, at about ten o'clock, he had another chill, and his temperature arose again to 105°. Then followed three days when part of the time the temperature was normal, and at other times it rose to as high as 101° and a fraction. On the fifteenth day he had two chills, followed by a rise of temperature to 105°. The next day he had another chill, with a temperature of 100°. At irregular intervals he had chills, each time the chill being followed by a rise of temperature to 102-4-5°. (Showed tracing.)

At first, there was some doubt as to whether or not the case might be one of empyema, but physical examination of the chest showed that nothing was going on there except a satisfactory resolution of the pneumonic process. About four days after the initial chill he developed signs over his heart. A systolic murmur appeared, located over the apex beat, and throughout the remainder of his life this murmur gradually increased in its intensity, and it was the sole cardiac phenomenon. There was no increase in the size of the heart; no accentuation of the second pulmonic tone; no other auscultatory phenomenon developed. The blood showed practically nothing; leucocytes had dropped down to normal. Blood cultures were made a number of times without success. After a period of about twenty-eight days he developed on the thirty-second day of his illness purpuric spots which were not evenly distributed over the body. They were confined largely to the face, neck, and upper portion of the thorax. They were quite numerous on the back, and there were a few on the legs where ordinarily they are most numerous. They were never very large. Blood cultures were made again that morning and showed pure cultures of pneumococci. Five days later the patient lost entire control of his mind, and gradually his strength failed until he died.

We were fortunate in being able to hold an autopsy in this case shortly after death. The patient died early in the morning, and the specimens were turned over as promptly as possible to Dr. Zeit for preparation and exhibition here tonight. Omitting the unessential portions, the autopsy showed endocarditis confined to the mitral valves in the form of a very large vegetation of the size of a hazelnut and many small vegetations. There were embolic changes in the kidney and spleen. In the heart muscle we found two or three areas of hemorrhage which do not show in the specimen. In the spleen there were a number of large infarcts. In both kidneys also were numerous infarcts, and one of the infarcts in the kidney had been dissected and shows the embolus in the vessel going to the infarcted area. Smears made from the vegetations of the mitral valve show a pure culture of the pneumococcus. Cultures were made from the valves after a period of some hours, but are not pure pneumococci, for there were present some other organisms which were probably saprophytic. We have not yet been able to pick out the pneumococci pure. Cultures made of the blood before death showed pure pneumococci, and the smears made immediately at the autopsy, as soon as the heart was opened, showed also pneumococci. Unfortunately, there was a delay of a number of hours between the time the autopsy was made and the time the material was turned over to the pathologist.

There can be no question whatever that we have here one of the still relatively rare instances of pneumococcic endocarditis, presenting itself in such a way as to enable us to make the diagnosis during life.

You will recall that two or three weeks ago Dr. Billings showed specimens from two cases of pneumococcic endocarditis. Both of his cases were examples of acute endocarditis manifested on an old endocarditis. I have also records of two other cases of endocarditis developing as a result of pneumonia. These cases, however, fortunately recovered, but with valvular defects. In both I was able to demonstrate repeatedly the presence of pneumococci in the circulating blood. Both clinically and pathologically these cases do not differ from the cases of acute endocarditis of other origin. One cannot infer from the clinical or pathological picture what the infective agent is. That can only be determined by means of bacteriological methods.

Dr. Miller (closing the discussion): I wish to emphasize the point made by Dr. Herrick. Apparently the presence of an enormous number of lymphocytes in the pleuritic fluid means that the process is tubercular; but their presence in limited numbers does not necessarily mean that the process is not tubercular.

Dr. Churchill (closing the discussion): I would like to ask Dr. Herrick in the case he cites, how many counts were made from the time the diagnosis was made until death occurred?

Dr. Herrick: It is true that in that case the examination was not as perfect as it might have been, and I do not know how many counts were made, yet certainly no marked reduction in the lymphocytes occurred.

NORTH SHORE BRANCH.

The North Shore Branch held its regular monthly meeting in Hipple & Clark's Real Estate office Tuesday evening, May 3, 1904. The following program was given:

Clinical Diagnosis of the Malarial Parasite. (Illustrated with drawings and microscopical specimens.)

George Edwin Baxter.

It may be well to preface this paper with the statement that the writer makes no attempt to present any new observations in the study of this classic disease nor to present an exhaustive resume of the work already done, but

to give some practical clinical points which will aid the practitioner in diagnosing malaria by the recognition of the malarial parasite.

For the greater part of our present knowledge of the malarial parasite we are indebted to Thayer, Osler, Hewesten, Mitchell, Barker, Dock and Ewing of this country; Ross, Laveran, MacCullom, Marchiafava in the old country.

Historical. The history of the study of this disease from an etiological standpoint dates back to the fifth century, B. C, when Empedocles of Agrigento noticed "injurious effect of stagnant water on the health of man." Hippocrates distinguished intermittent and continuous fevers and classified them into tertian, quotidian, and quartan. Little advancement was made in the knowledge of malaria until the 18th century, when the therapeusis underwent a revolution by the discovery of the cinchona bark and its application as a specific remedy for certain essential fevers. This led to the two great divisions of these fevers, into curable and non-curable with the cinchona bark. More careful investigations were made to ascertain the true nature of those fevers and many and varied theories expounded. Lancici recognized "noxious emanations from marshes," studied this air with the view to finding some insect demonstrable under the microscope. The humoral theory had its exponents, basing their ideas on inaccurate pathological findings. There were two phases to the humoral theory: first, that in the pernicious forms of malaria there existed an inflammatory process in the alimentary tract and associated viscera. This led to a treatment by bleeding instead of use of the cinchona bark. Second, the change in atmospheric conditions between day and night caused a peculiar pertubation of vascular and nervous systems with a resultant febrile attack. Rasori wrote: "For many years I have been of the opinion that intermittent fevers are produced by parasites which re-create an attack in the act of their reproduction, this occuring at more or less rapid intervals according to the species. Metaxa supported in part this theory and added that the duration of the attack is equal to the life of the parasite. Even after the pathological discoveries of Virchow, Meckel, and Fredericks much confusion existed as to the true nature of typhoid, so-called typho-malaria, yellow fever and dysentery; all were believed to be of malarial origin. It remained for Laveran in 1880 to discover the true nature and cause of the disease, in the plasmodium malariae.

Examination for the Parasite.

Time for Making the Examination. Formerly it was considered best to obtain the blood from the suspected case of malaria during the chill, others believed that better results were obtained in specimen taken immediately before or after the paroxysm. The most opportune time to find the parasite, according to Thayer, is eight hours before or eight hours after the paroxysm. Cabot says twelve hours before or after. If the observer is familiar with the development cycle of the parasite he will be better able to recognize it, because of the knowledge of the appearance at that particular time of development. As a rule the best time to look for the parasite is during the middle 24 hours in the tertian variety. The quartan is best seen 12 to 24 hours after the paroxysm. The aestivo-autumnal is more irregular in its development and the time for examination can not be so easily determined.

Technic. Examination of the blood for any condition requires careful, accurate and fine technic, nor do we find this any the less true in examining for the malarial parasite. The technic although painstaking is nevertheless simple and easily within the reach of any one familiar with the normal histology of the blood and accustomed to the use of the microscope. It is better to use the 1-12 oil immersion lense, the practiced observer may use the 1-7 objective. When possible the fresh specimen should be examined.

Preparation of Slides and Cover Glasses, involves primarily absolute cleanliness. No cover glass or slide should be used which is not free from dust, oil, or any other foreign substance which would interfere with the uniform spreading of the blood or confuse the observer in determining whether a given substance be malarial pigment or dirt. Such mistakes are not so common in the fresh specimen where the pigment is actively motile but in the stained specimen it is not so easy to distinguish the true from the false.

Method. Wash thoroughly in soap and water. This the first and most important step when carefully done is considered by many to be the only step necessary. Further cleansing may be effected by subsequent washing in a solution of equal parts of alcohol and ether and polishing with a clean bit of linen (pocket handkerchief) or piece of fine tissue paper, ordinary toilet paper will answer very well. Do not polish the glasses with cotton cloth or anything which will shed lint for the very act of cleansing would defeat the purpose sought. Care of the glasses after drying is of no little importance. If the clean glass be left exposed to the air for any length of time microscopical particles of dust will collect on it. This may be obviated by folding a clean piece of white note paper in the middle and as they are dried they are dropped from the piece of linen between the sheets of paper lying in the horizontal position, without bringing the glass in contact with the moisture of the fingers. Some observers advise heating the glasses as a final step in the cleansing process, personally I have never been able to demonstrate any superior advantage in the added heating. In all subsequent handling of the glasses forceps should be used or they may be held by the sides or corners between the thumb and index finger.

Obtaining Smears. After the puncture is made in the usual manner and the blood allowed to flow freely a small drop is selected (a large drop will spread too thick and spoil the smear) and the cover glass is brought in contact with the tip of the drop (taking care not to touch the skin with the glass) quickly inverted and let drop on the slide. A small drop, and clean glasses will insure a thin uniformly spread blood smear without any pressure. A properly spread smear should show, under the microscope, the R. B. C. lying in single layers, so that each cell

may be studied separately. Previous warming of the slides will prolong and make more active the amoeboid motion of the parasite. If it is desired to keep the specimen fresh for several hours paint a narrow rim of vaselin or paraffin around the edge of the cover glass.

Examination of the Fresh Specimen. Cabot says that failure to find the parasite in a case of malaria is due to one of three faults: first, too thick spreading of the blood, or, second, not looking long enough, or, third, poor light; therefore in a case of suspected malaria careful, diligent and persistent search must be made. In the early stages of development we look for the so-called hyalin body within a red corpuscle since the parasite is practically never seen outside of the corpuscle. Greatest confusion in the diagnosis of the hyalin form arises from the similarity it bears to the normal central light area of the R. B. C. By remembering the following points of difference the observer should easily exclude these artifacts:

First. They are far too numerous to be malarial organisms, rarely are there more than one or two malarial parasites in a single field.

Second. Light area of the corpuscle is in the centre, malaria organism is usually eccentrically located.

Third. They are usually round, the malarial parasite is irregular in its outline.

Fourth. They apparently increase or diminish in size as we focus on them, while the parasite grows dimmer or clearer.

Fifth. The color is brilliantly white, and shiny, while the malarial organism is a dull pearly white with tinge of yellow from the corpuscle substance.

Sixth. The edges are sharper, more defined; malarial organism fades off into the corpuscular substance.

Seventh. The Brownian movement, exaggerated when crenation is present, is a wavy undulation while the malaria parasite changes both its shape and position in the corpuscle, when pigment is present the rapid dancing motion of the granules is very characteristic and unlike anything found in the blood and when once recognized will not be forgotten. When the organism is dead it may be quite difficult to distinguish dirt from pigment.

As the parasite matures it may be almost impossible to see the remaining rim of the protoplasm of the corpuscle in fact in many cases in the full grown organism it cannot be. Occasionally one sees an extra corpuscular variety.

Examination of the Stained Specimen. When for any reason it is desired to obtain a stained specimen, the drop of blood is obtained in the usual manner but instead of dropping the cover on the slide it should be dropped on another cover so that the sides of one cover are at right angles to the other and the covers gently drawn apart while the surfaces are in contact and the smears allowed to dry. The specimens are then fixed by immersion in alcohol 95 per cent for 5 to 10 minutes, Ewing says there is no advantage in adding ether to the alcohol. More rapid fixation may be accomplished by immersion for 1 minute in a ¼ per cent solution of formalin in 95 per cent alcohol made fresh just before using. Heat fixation is not necessary or as satisfactory in this class of blood work.

Staining. Of the many different stains advocated all of which have merit two types have been selected as having given very good practical results in my hands. The protoplasm of the malarial parasite stains with the basic stains and its nuclear body with the intense nuclear stain e. g. haemotoxylin, or thionin or the red element in the polychrome methylene blue stain.

First. Staining With Eosin and Methylene Blue. This method is simple and gives very satisfactory results. The Jenner's stain or so-called Eosinate of Methylene Blue does not give quite as satisfactory results as staining with solution of eosin and followed with a solution of methylene-blue.

Method. After fixing the specimen it is stained for ½ to 1 minute, in a ½ per cent solution of eosin in 60 per cent alcohol, wash dry, and counter stain ½ to 1 minute in a saturated aqueous solution of rectified methylene-blue.

Results: Nuclei of the W. B. C. and malarial parasites are stained blue while the R. B. C. are a pale yellow color sometimes almost transparent. The light staining by eosin is absolutely necessary for the clear demonstration of the parasite with the methylene blue stain. Methylene blue fails to stain the nucleus of the young ring forms consequently a solution of hematoxylin may be used in place of the methylene-blue.

Second. The Wright's and the so-called Nocht-Romanowsky method of staining give the best results for studying the finer detail of the malarial parasite. The following is the Nocht-Romanowsky method of staining as described by Ewing, a fuller description may be found in his article on Malarial Parasitology, Journal of Experimental Medicine, 1901.

1. To 1 ounce of polychrome methylene-blue (Grubler) add 5 drops of a 3 per cent solution of acetic acid (U. S. P. 33 per cent).

2. Make a saturated 1 per cent watery solution of methylene-blue, preferably Ehrlich-(Grubler) or Koch's dissolving the dye by gentle heat. This solution improves with age and should be at least a week old.

3. Make a 1 per cent watery solution of Grubler's watery eosin.

To 10 c.c. of water add four drops of the eosin solution, 6 drops of neutralized polychrome blue, and 2 drops of 1 per cent methylene blue, mixing well. The fixed specimen is immersed specimen side down for 1 to 2 hours and will not overstain in 24 hours.

Staining by Wright's Method. Formula for Stain. ½ per cent Na HCO 3 in Ehrlenmeyer Flask dissolve thoroughly and add 1 per cent Methylene Blue (Grubler, Koch's or Ehrlich's rectified.)

Steam in sterilizer for one hour; cool without filtering add with stirring a 1 to 1,000 Eosin yellow solution till a purple and metallic-like scum forms on surface and a black finely granular precipitate forms in suspension (takes 500 c.

of Eosin for 100 c.c. of Methylene Blue solution). Filter and dry without washing. Make saturated solution in Methyl Alcohol Puris (o.3 Gm to 100 c.c.) Filter and add 25 per cent Methyl Alcohol. Wright's stain may be obtained already prepared at the Harvard Co-operative Society Store, Boylston st., Boston, Spencer Lens Co., Buffalo, N. Y., or Dr. Ross C. Whitman, Chicago Polyclinic Hospital, Chicago.

Method. Staining for one minute (to fix) add water drop by drop until semi-translucent reddish edges and scum forms and allow to stand 2 to 3 minutes. To differentiate wash in (distilled) water till reddish or yellow, at desired point dry quickly between filter paper and mount in balsam.

Result.

Red cells orange or pink.

Small lymphocytes stain dark purplish blue nuclei, robin's egg blue cytoplasm.

Large lymphocytes—two forms nuclei as above, first cytoplasm pale blue, 2d, cytoplasm blue and lilac or deep purple granules.

Polymorphonuclear neutrophiles stain dark blue or lilac nucleus; granules reddish lilac color.

Polymorphonuclear Eosinophiles stain nuclei same as neutrophiles, granules eosin color in blue cytoplasm.

Mast Cells—size of the polymorphonuclear with purple or dark blue irregularly shaped nuclei and cytoplasm sometimes blue, plus coarse spherical granules.

Staining with the Wright's stain and with Goldhorn's stain which is very like Wright's stain give very similar results to the Nocht-Romanowsky method, Wright's and Goldhorn's stains require no fixing except with the methyl alcohol used in the staining process. The rationale of these methods is not fully understood but it appears most probable that a staining agent which unites selectively with chromatin exists ready formed in the polychrome methylene-blue.

Morphology of the Tertian Parasite.

The time required for the development cycle of the tertian parasite in man is forty-eight hours, the full development is characterized clinically by the familiar paroxysm of chill, fever and sweat, hematologically by the segementation and sporulation of the parasite.

The Youngest Tertian Form. The first stage in the development is the appearance of the hyalin-non-pigmented-intracellular organism. This body is found inside of the red blood corpuscle and corresponds in every detail with the spore resulting from the segmenter. Although it has never been demonstrated that the spores from the segmenting variety re-enter the red corpuscle there is practically no doubt that this process occurs. This, the youngest form of the tertian is about 2 microns in diameter, compact, spheroidal, oval, or irregular in shape, pearly white in color in the fresh specimen. In a stained specimen there is seen an outer rim of basophilic protoplasm surrounding a nuclear body which does not stain with the methylene blue but reacts to the hemotoxylin or to the Nocht-Romanowski or Wright's stain.

The Tertian Ring Form. The next stage or rather a continuation of this stage is the tertian ring form, in size about 3-4 microns in diameter. This form is retained without marked change in size for about 6 to 8 hours. In the fresh specimen the active amoeboid motion gives rise to all sorts of shapes and irregularities in contour; occasionally the ring seems to unfold and the parasite stretches clear across the swollen cell, with the nucleus at one end. Usually a few pigment granules are seen; the ring almost always encloses a considerable mass of Haemoglobin. The nuclear body is the most characteristic feature, appearing as a rather large, achromatic, highly refractive body with methylene blue stain, but stains intensely with hematoxylon and by Nocht's or Wright's method. It is during this stage that care must be exercised not to confuse the normal central light area of the red corpuscle mentioned above.

The Intra-cellular Pigmented Form. After 6 to 8 hours the tertian ring begins to increase more rapidly in size, becomes more actively amoeboid, develops an outgrowth from one segment of the ring; the nuclear body increases in size projecting into the ring and the chromatin divides into several large granules. Pigment granules are abundant and more actively motile.

Toward the end of the first 24 hours the parasite occupies about three-fourths of the swollen cell, which gradually loses its Haemoglobin and is much paler. The amoeboid motion is distinctly less active, the protoplasm more homogeneous, the outer portion stains more deeply than that immediately around the nucleus; pigment granules, now very abundant, are eccentrically located. The shape is more round or ovoid. The nucleus more nearly fills the ring, stains a pale blue with the methylene-blue and less intense with the former stains it reacted to. The parasite reaches its full growth about the 40th hour of the cycle. The nucleus disappears to reappear as the refractive spots in the pre-segmenting variety and finally in the rosettes.

Tertian Rosettes. This constitutes the segmenting stage of the developmental cycle which finally breaks up giving out some fifteen or twenty spores. When the parasite reaches its full growth, the pigment loses some of its activity has a tendency to migrate from its eccentric location toward the center, granules group closely together are coarser, darker in color, often compacted into spikes or rods and finally the groups mass in the center so that it is difficult to distinguish the individual granule. About 15 or 20 refractive spots appear around the periphery of the parasite, these spots stain with the same stain as the original nucleus. Following the appearance of the refractive spots are seen dim linear shadings beginning at the periphery and radiating toward the center, each line is located about midway between the refractive spots, coincidently the peripheral rim of the parasite becomes corrugated, each corrugation capping a pair of the shadings thus dividing the parasite into as many segments which, when

the limiting membrane of the corpuscle is broken are set free as spores to be again taken up by other corpuscles.

In the stained specimen we note that the protoplasm of the parasite stains a blue with methylene blue and the nucleus remains unstained, the older the parasite the less reaction of the protoplasm to the methylene blue and the less intense the nuclear stain with the Romanowsky or Wright's.

Extracorpuscular Parasites. Many parasites which begin as intracorpuscular organisms do not complete the usual cycle of development, but break through the corpuscle and are seen free in the blood, these extracorpuscular forms probably do not exist in the human body and their exit from the cell may be facilitated by the addition of a little water or salt solution to the specimen. These forms end their career in different manners. Some increase to the size of a Leucocyte have very active pigment, gradually the pigment becomes less motile, parasite is irregular in shape and finally undergoes a fragmentation. Others degenerate and form vacuoles, and one of the most interesting changes in the extracellular form is the development of flagella. The chromatin increases in quantity breaks up into several small filaments, the pigment at first very active collects near the center, after a few undulating movements from 1 to 6 filaments or flagella are given off from the periphery. These flagella frequently have small nodular enlargements along their sides which may contain a few pigment granules. Pigment granules may collect in the extremity of the flagellum. Flagella are from 5 to 20 microns long and very actively motile, often causing a great commotion among the red cells in the immediate vicinity so that the observers attention may first be directed to these disturbed red corpuscles. The final disposition of the flagella is either reincorporation or separation from the parasite. These flagella have been seen to enter the body of another parasite and consequently have been considered to be the male sexual element.

Estivo-autumnal Parasite.

Ring Forms. In the estivo-autumnal variety the parasites do not have a regular 48 or 72 hr. cycle of development but they are found in different stages of development in same individual. Sporulation takes place at irregular intervals giving rise to irregularity in the occurrence of the paroxysms. In some instances the cycle of development is 24 hours in others 48 hours and in others a longer time is required. The young hyalin form of the estivo-autumnal bears a strong resemblance to the similar forms of the tertian and quartan varieties. The extreme rarity of the quartan parasite in this country puts it in the class of medical curiosities rather than making it of any practical importance, consequently in the differentiation of the young malarial parasites the quartan variety will not be considered.

Comparison of the Tertian Ring and Estivo-autumnal Ring.

First. Ewing asserts that the nuclear body of the young tertian parasite is achromatic to the methylene-blue, which densely stains the nucleus of the estivo-autumnal organism.

Second. The shape and contour of the tertian ring is usually coarse and irregular, but the estivo-autumnal ring is geometrically circular, more delicate, fine bow and usually a typical signet like swelling. In the fresh specimen there is noted a continued succession of change in the shape of the estivo-autumnal from disc to ring to disc, which DaCosta asserts is highly characteristic of this organism.

Third. One or two pigment granules are usually found in the early tertian ring and are as constantly absent in the estivo-autumnal ring.

Fourth. Gautier asserts that the tertian ring is usually pigmented before the chromatin becomes subdivided, while the chromatin of the estivo-autumnal ring is always subdivided before appearance of the pigment.

Fifth. The corpuscle is swollen from the moment of infection by the tertian spore, and usually shrunken and brassy in appearance when the estivo-autumnal parasite is present.

Full Grown Pre-segmenting Form.

The estivo-autumnal parasite continues to grow with varying rapidity from the signet ring form to the pigmented pre-segmenting variety and the rosette. The latter two varieties are rarely seen in the peripheral blood and in order to be studied the blood must be taken from the internal organs, e. g., the spleen. The pre-segmenting variety differs from the corresponding variety of the tertian organism, in containing smaller amount of darker, less actively motile pigment, has less amoeboid motion.

Estivo-autumnal Rosette.

The estivo-autumnal rosettes differ from the tertian rosettes in the smaller size of the body, the shrunken appearance of the cell, and in the smaller but not number of spores. The pigment which early in the pre-segmenting stage is found in two or three groups is now seen in a single compact mass. According to Gautier the early concentration of pigment is one of the chief features which distinguish the estivo-autumnal rosette from the tertian rosette.

Species of Estivo-autumnal.

Members of the Italian school who have done so much work on this variety of the malaria parasite maintain that there is a plurality of species in the estivo-autumnal groups of parasites and have distinguished two varieties the quotidian and the malignant tertian. However there does not exist a unanimity of opinion among the observers that these two varieties which so closely resemble each other, that it is only possible to differentiate them in the full grown organisms, are two species but on the contrary closely related varieties of one and the same parasite.

Crescent Forms.

On or after the 4th to the 6th day after the initial paroxysm there may be found the crescent body or its allied forms, which is a very characteristic and distinctive form of the estivo-autumnal parasite. The crescent persists in the blood for six weeks or longer and clinically ha

been observed to be very resistant to the administration of quinin. The crescent is represented by the round, oval of typical crescent shape and constitutes the early forms of the sexual cycle of the parasite. The origin of the crescent may be directly from the spores or what is more probable that they develop from the same parent body in which the young parasites are of crescent form before their discharge from the mother cell. The average crescent is 6 to 12 microns in length, 2-3 microns in breadth, when full grown. The young crescent alters its shape by contracting and swelling, but has no amoeboid motion. The pigment is in the form of coarse golden yellowish grains, or rods, arranged in a single central mass or like the figure 8. Some writers describe the crescent as possessing a double outline as though the parasite was enclosed in a membrane. The parasite develops in the body of the red corpuscle which ultimately gives place to the organism and frequently nothing remains of the corpuscle but a small portion at the convex side which has been given the name of "bib." Some of the crescents may develop flagella. When blood containing crescents stands in the air or is left under a cover, the crescent assumes a speroidal form active vibratory motions of the pigment begins, and soon pseudopodia shoot out with active lashing movements. The formation of the flagellae represents the second stage in the sexual cycle probably never occurring in the human body.

Although not within the scope of the present subject the clinical aspect of malaria would not be complete without a mention of the method of contagion. We are largely indebted to Ross for his discovery of the relation of malaria to the mosquito and the knowledge that the only means of acquiring malaria is to be bitten by an infected mosquito. The parasite undergoes a definite cycle of development in the body of the mosquito. One chief point of difference between the cycle in the human and mosquito is that the former is asexual and the latter sexual development.

Demonstration of Forceps operations on the Manikin. (Report not received.)

Charles B. Reed.

The papers were discussed by Drs. Whitman, Healy, Bachelle and Garvy.

In place of the regular April meeting the Branch held its first annual reception and banquet for the members and their wives. About 50 were present and a thoroughly good time was enjoyed by all. The members were unanimous in the opinion that such an occasion is a necessity for the promotion of better acquaintance and good fellowship in the local profession.

NORTHWEST BRANCH.

The Northwest Branch of the Chicago Medical Society held its regular meeting on Friday, May 6th, 1904, at Kapp's Hall, N. W. Cor. California and North Aves. The attendance, which was sixty, was the largest of any previous meeting and included visitors as well as members. The following program was given:

Symposium on Tuberculosis.

The History of the Discovery of the Tubercle Bacillus.

Melchior Whise: The modern conception of Tuberculosis is of recent origin, but the history of its existence and spread in man and beast may be traced back to the most ancient ages.

It was a destructive scourge, which kept pace with the advance of civilization during all past centuries. Right at the beginning of the foundation of communities it has raised its Medusa Head as a warning against crowding together in close proximity. It must have spread its deathly penalty among the Jews in the Desert, because as early as about the 14th century, B. C., the erring sons of Israel were threatened with Consumption as a punishment for their sins.

The word Phthisis was used in the 5th or 6th century, B. C., to designate wasting diseases in general, but Hippocrates used the Greek word Phthae in connection with respiratory disturbances exclusively.

The Jewish dietary laws, compiled and systematized in the 1st and 2d centuries, A. D., described Bovine Tuberculosis, or **Perlsucht** very lucidly, as tubercles in the lungs of cattle situated on the margin or imbedded into the lung tissue, and forming cavities therein and causing it to be so brittle as to fall to pieces at the touch, and was therefor forbidden to be used as food. This condition was considered surely destructive to the life of the animal within one year. Already the very oldest medical writers have given some thought to Tuberculosis of the Lungs. Hippocrates sums up some of its symptoms, Aretaeus gives a fine clinical and pathological description of Tubercular nodosities in the lungs. Galen, Maimonides, and the Arabian physician, Rhazes, allude very clearly to Phythisis Pulmonalis, Bonnetus describes cavities and granulations caused by tuberculosis, Sylvius, in 1670, gave expression to the belief that Tuberculosis and Scrofula are produced by the same causative factor. In the 18th century post-mortem studies were taken up with great diligence and energy, and a great deal of light was thrown on the pathological condition of Tuberculosis. Magnetus found miliary tuberculosis in 49 cases and describes the (as he puts it) **semen milii**, arising from the lymph glands in both men and animals. Numerous other writers, among them Dr. Baillie, described Pulmonary Tuberculosis, giving good clinical pictures and therapeutic measures. Tuberculosis was never considered as a general disease affecting other parts of the body than the lungs, until the early part of the 19th century.

Bayle, in 1810, was the first writer to report post-mortem findings of the tuberculosis in the mesentery, spleen, and liver. From this time on, tuberculosis was the most important subject in the minds of prominent medical men. Investigators were getting nearer and nearer to the realization of the true character of this, so called, White Plague. They were still groping in the dark, but they felt confident that the time would come when the veil of ignorance

would be raised from this rapidly and relentlessly spreading enemy of everything that is living and tuberculosis would be disclosed to its full extent. Several investigators gave the best efforts of their life to this study, but came to different conclusions, and in their blind zeal had tried to tear down what others had built in the right direction. Laennec, in 1819, described the tubercle as a pathological product which is positively absent in the healthy human body, and is only present as a cause of a particular disease by containing tubercular material, which is of the consistency of pus and permeates the whole tubercle. This was fought by Broussais and others, who claimed, that tuberculization was always the result of some inflammation like Pneumonia, Bronchitis, Laryngitis, etc. Lebert, in the second half of the 19th century, came one step nearer to the truth. He made microscopical investigations and discovered—what he called—**Corpuscle Tuberculeux,** but which were found to be nuclei, and epithelial cells in various stages of degeneration.

Laennec's teaching of tubercular unity suffered a great set-back by the fact, that in the early part of the 19th century tubercular pus was injected repeatedly into dogs and guinea pigs, without resulting in reaction. In 1826 Cruveilhier injected mercury into the trachea and veins of animals, and thereby produced nodular formations in the lungs, liver and mesentery as a proof that tubercles are not specific tubercular products.

Klencke, in 1843, and Villemin, in 1865, succeeded by injecting tubercular matter, in transfering tuberculosis to rabbits, and this fact gave an impetus for new hope and vigor to the school which believed with Villemin that "Tuberculosis must be the effect of a special virus which resides in the morbid product." Villemin announced on the 5th of December, 1865, that this special virus; when introduced into an organism susceptible to its impression, must reproduce itself in the same length of time as the disease of which it is the essential principle and cause. Cohnheim, Frankel and others denied this law and claimed that the same result may be produced by the injection of substances like Cinnibar, Gutta Percha, etc., etc., but finally the unity and infectious nature of tuberculosis was accepted.

Science was making rapid strides in the right direction. In 1877, Klebs announced that injections of products from cultures give the same results as the injection of tubercular matter itself.

While Klebs' discovery was of an importance of the greatest magnitude and has established the infectiousness and transferability of tuberculosis beyond any dispute, the question still remains open: what was the true nature and active principle of the virus, which when transfered produced the same pathological condition in the tissue as was found in the one from which it was taken? This question was strikingly answered by Koch in 1882. He surprised the medical world by the announcement of his discovery of the Tubercle Bacillus, and published a full account of his research in 1884. He proved conclusively, that Tuberculosis is produced by a living agent. His work on the subject will stand forever, as a classical masterpiece in bacteriological research. He overcame great difficulties both in demonstrating the bacilli in the tissues and in reproducing them in culture. In order to discover the bacillus, he had to find new ways of staining the specimen. He had also found that the Tuberculosis Bacilli could not be cultivated in liquid media, therefore he had to devise a solidified medium for his culture. On finding that the Tuberculosis Bacilli could not be stained by a simple watery solution of a basic aniline dye, he stained it for 24 hours with a solution of methylene blue.

The fact that it took at least 10 days before the bacillus appeared in the culture medium had not induced him to conclude hastily, that it could not be cultivated. He repeated his experiments in a great variety of ways: he inoculated the material containing Tuberculosis Bacilli into different animals and always succeeded in producing tuberculosis.

The outlook is encouraging and it is only a matter of time when the master mind of man will reign supreme in ridding suffering mankind of this gloomy inheritage of all past centuries.

General Etiology of Tuberculosis.

R. S. Michel: The exciting cause of tuberculosis is the bacillus tuberculosis, a rod shaped bacillus, often slightly curved, and from one-fourth to one-half as long as the diameter of a red blood cell. It is easily stained, together with the tissue in which it is imbedded. Its recognition depends upon the fact that it resists the destaining action of acids. Tuberculosis does not exist except by reason of the presence of this germ—hence this constitutes the prime factor in the case.

There are however many contributory causes, of which the most important are the following:

1. **Hereditary tendency.** By this is meant an inherited lack of resistance to the invasion of the germ; such an individual usually, but not always, has an illformed flat chest—a "phthysinoid chest." The expansibility of this chest is not good—especially in its upper part. This lack of expansion probably favors the lodgment and development of the bacillus. Why some fanatics should show a lack of power to resist tuberculosis we do not know. We only observe it as a clinical fact. Such persons are fair, and usually present an appearance of anemia.

2. **Age.** The great majority of cases of tuberculosis develop in persons between the age of fifteen (15) and forty (40). After the age of forty the individual is comparatively immune, and liability to the disease decreases with advancing years. Before the age of fifteen tuberculosis is uncommon. When tuberculosis does develop in childhood however, other structures than the lungs are more likely to be attacked—as for instance the cranial meninges, or the peritoneum. This fact cannot at present be satisfactorily explained.

3. **Race.** The Negro race is more prone to tuberculosis than the Caucasian. A Negro's power of resistance is less. In him is the dis-

ease much more certainly and rapidly fatal. In the Negro is seen the most typical cases of the socalled "galloping" consumption, or "hasty" consumption.

4. **Occupation.** Occupation is often an important etiological factor. Inhalation of dust in large quantities, even though the dust contains no bacilli, is very harmful. The kind of dust is not very material. Persons injured in this way are coal miners, millers, scissors grinders, glass grinders, stone cutters, buffers, planing mill men and many others.

The bronchi are supplied with minute hairs, or "cilia," whose office it is to keep the air passages clean and free from dust and foreign particles, and this office they perform under ordinary circumstances by means of their waving, sweeping outward motion. But if dust is inhaled in large quantities they are no longer able to perform this function. The cilia themselves are destroyed. The delicate mucous lining of the bronchi is then more directly exposed to the irritant action of dust. In time should the irritant still continue, the mucuous membrane is lost.

Nature comes to the rescue by throwing out fibrous material to protect the deeper layers of the bronchi. This fibrous material is sufficient often to constitute the so called "fibrous" lung. This constitutes "dust consumption" or "coal miner's consumption." Persons die of this disease without the intervention of tuberculosis. The lung tissue becomes fibrous, hard, and lacks normal resiliancy.

By reason however of the diseased and denuded surfaces upon the bronchi the bacillus tuberculosis which is so universally present in the dust we breathe, readily finds a lodgement, and a fruitful soil upon which to grow. So in most instances tuberculosis is sooner or later grafted upon the case of dust consumption and death insues from a combination of the two causes.

5. **Other Diseases.** Certain diseases favor the tuberculous process, especially measles, bronchitis, whooping cough, and diabetes.

First in importance in this regard is measles. Why measles promotes a rapid onset in latent cases of tuberculosis is unknown. It is not due wholly to the catarrhal condition by which it is accompanied; the tendency is too marked to be explained upon this hypothesis. Nor is it due to the subsequent debility or prostration, for other diseases followed by prostration equally great do not possess this characteristic. We must acknowledge the clinical fact without at present being able to satisfactorily explain it.

In whooping cough it is due to traumatism down to the bronchi by the violence of the cough, and by interference with nutrition by vomiting.

In bronchitis the inflamed and congested membrane with occasional breaks in the continuity of the lining epithelium offer favorable opportunity for the lodgement of bacilli.

Diabetic patients are very prone to become tuberculous; this is due to the extremely low power of resistance of persons afflicted with this disease. Under these circumstances the tubercular process advances very rapidly.

6. **Climate.** An important etiological factor is climate. Countries of the temperate zone having long, cold, damp, changeable winters, favor its development. This is due partly to the fact that under such circumstances persons remain indoors, thus being shut off from proper air, sunshine, and exercise; and partly due to the fact that such climates favor the development of catarrhal inflammations of the air passages. In our own country the dry, arid, sandy plains of New Mexico and Arizona, are comparatively exempt.

7. Individual habits are to be taken into consideration in this connection. In order to avoid the disease we should have plenty of out door exercise, air, and sunshine; especially sunshine. He who has observed the difference between a plant growing in the dark, and one growing in the sunlight can appreciate the effect of sunlight in the laboratory of nature. We should dress warmly, having flannel next the skin; eat nutritious and easily digested food, and be regular in our habits. He who lives otherwise, especially should he have the inherited tendency may invite tubercular trouble later on.

3. **General Morbid Anatomy.** Wm. A. Evans. (Report not furnished.)

4. **Social Influences; Sanatarium Treatment and Mortality of Pulmonary Tuberculosis.** Arnold C. Klebs. (Report not furnished.)

The discussion, which was opened by W. A. Evans became general and free and a number of valuable and interesting points were brought out which unfortunately cannot be recorded owing to the absence of a stenographer.

Motion to appoint a committee of three to draft resolutions endorsing Dr. Evans' candidacy for president of the University of Illinois carried. The following were appointed: Drs. Henderson, Fowler and Senfert.

Following are the resolutions brought in by the aforesaid committee:

Whereas, Wm. A. Evans, an eminent member of our profession has been mentioned as a candidate for the position of president of the University of Illinois; and

Whereas, We, the members of the Northwest Branch of the Chicago Medical Society, know him to be a man in every way thoroughly qualified for the position; therefore, be it

Resolved, That this branch most heartily and earnestly endorse his candidacy.

On motion the Society adjourned until June 3, 1904, annual session for the election of officers.

CHICAGO PEDIATRIC SOCIETY.

Officers.

President ..... S. J. Walker
Vice President ..... F. S. Churchill
Secretary and Treasurer ..... Emma M. Moore
Member of Executive Committee ..... A. C. Cotton

The annual meeting of the Society was held in Schiller Hall, Tuesday evening, May 17, 1904, with Dr. M. P. Hatfield, in the chair.

Dr. J. C. Cook, as superintendent of the Jackson Park Sanitarium for sick babies, made the statement that a medical board had been

elected from the members of the Society, by the executive committee, to serve for one year at the Sanitarium, this board to consist of a visiting staff, a staff of alternates and a consulting staff as, follows:

Visiting Staff—Drs. M. P. Hatfield, J. C. Cook, Rosa Engelmann, Wm. C. Williams, Anna R. Lapham, Frank X. Walls, Emma M. Moore.

Staff of Alternates—Frances M. Allen, Julia D. Merrill, Dudley Jackson, Frank M. Kindig, D. W. Rogers, Geo. T. Palmer.

Consulting Staff—A. C. Cotton, Effa V. Davis, S. J. Walker, F. S. Churchill, John L. Porter, I. A. Abt.

Gratifying reports were read by the secretary and treasurer.

Election of officers resulted as above.

Program.

1. **The School as a Medium for the Spreading of Contagious Diseases.** Dr. Elsworth M. Conner.
2. **Report and Presentation of Case of Acquired Deaf-mutism.** Dr. Bathena Coone.
3. **Syphilis; Haemorrhagica Neonatorum.** Dr. J. H. Hess.

Society adjourned.

CHICAGO SURGICAL SOCIETY.

The President, E. Wyllys Andrews, M. D., in the chair.

Carcinoma of the Cheek.

Dr. Nicholas Senn reported a case of extensive carcinoma involving the left cheek, in the center of which was a perforation which communicated with the cavity of the mouth. Acting upon the supposition that it might be a case of abscess, he resorted, first, to curettage, hoping to improve the local condition as well as giving an opportunity to make an early diagnosis by the aid of the microscope. Sections under the microscopes showed it to be a case of unusually malignant form of carcinoma that had its starting-point somewhere about the alveolar process on the left side, involved the entire cheek, and gave rise to extensive destruction. There was extensive regional dissemination, although the disease had lasted only three months. A radical operation was resorted to. The entire cheek was removed, leaving the angle of the mouth, and a small portion of the cutaneous covering of the cheek. He sacrificed the periosteal covering of the lower jaw on the corresponding side, and made regional dissection by removing the submaxillary gland with the chain of lymphatics as a preliminary to the excision of the cheek, and covered the enormous defect which was produced by a plastic operation, using Thiersch's skin grafts. The wound healed by primary intention throughout.

Multiple Tubercular Abscesses.

Dr. Senn reported a case of tuberculosis of the ribs, of a most pronounced type, in a man of forty years of age. Three large tubercular abscesses involved the left side of the chest. One of these ruptured spontaneously, and a fistulous opening communicated near the nipple with a very large abscess cavity. Another abscess was found at the junction of the ribs with the cartilage near the sternum, and another to the left of the mammary line. The third, fourth and fifth ribs were the seat of tuberculosis. The first abscess was the result of tubercular perichondritis. The focus of tuberculosis of the fourth rib was almost directly over the pericardium close to the nipple. The third abscess was a little to the left and involved the fifth rib. The ribs were resected in their entirety, necessitating an extensive operation.

Acute Osteomyelitis.

Dr. Senn showed a patient for the purpose of making a few remarks in reference to the clinical behavior of certain forms of acute osteomyelitis.

Cysts of the Ductus Thyroglossus.

Dr. Senn had encountered three cases in two weeks of cysts of the ductus thyroglossus. The patients were all young subjects, eighteen to twenty-five years of age, two females, and one male. The cysts were comparatively small. The largest one was about the size of a small walnut. They were located in the median line between the thyroid cartilage and the base of the hyoid bone. The enlargement was slow, accompanied by pain and swelling. The skin was movable over the surface of the swelling in all of the cases. Fluctuation was distinct. Complete excission was resorted to. The cyst wall in one of the cases was as thin as tissue paper.

Fibroma of the Periosteum.

In the last ten days Dr. Senn said he had encountered two cases of fibroma of the periosteum. In the first case the fibroma had its starting-point from the periosteum of the second rib close to the cartilage. The tumor extended over the surrounding bony framework in mushroom-like manner, and underneath the clavicle. The tumor was removed through a curved incision, with its convexity directed upward, and the flap reflected as far as the clavicle, thus laying bare freely the base of the tumor, which he found intimately attached to the periosteum of the second rib near the sternum. The tumor was very firm and smooth, and on making a section it cut almost like cartilage.

He removed a second fibroma of the ribs last Friday from a woman, 30 years of age, which was situated at the lower part of the scapula. The patient first noticed the tumor eighteen years ago. It became stationary, but later gave rise to serious functional disturbance by fixation of the arm. The tumor was removed.

Verruca Senilis.

Dr. Senn exhibited two specimens from the face of a woman, 71 years of age, the subject of multiple senile warts. In both cases the disease involved the malar prominence on both sides. There were a number of these warts scattered all over the face, those over the malar eminence being the seat of repeated irritation and had undergone transformation into epithelioma.

Myositis Ossificans.

Valuable as the X-ray is as a diagnostic resource, Dr. Senn said occasionally it lead-

physicians into difficulties. He related a case briefly in confirmation of the correctness of this assertion. The patient was a colleague upon whom he had operated twice before, once for a diffuse septic inflammation involving the right arm and forearm, and a second time for appendicitis. For a number of months he had complained of a vague pain in the right shoulder. The patient regarded it as a rheumatic affection. Local and general treatment failed to give relief. The pain increased in severity, and the shoulder joint almost completely lost its function. Dr. Senn could find no indication of any swelling, but found at a point corresponding to about the middle of the base of the deltoid a limited area of tenderness. The X-ray picture showed in the center of the deltoid muscle a dark elongated spot. The shoulder joint itself was normal. He thought he would make no mistake if he considered the case on the face of the photograph one of myositis ossificans. He thought the dark island represented bone tissue in the deltoid as it appeared entirely separated from the greater tuberosity of the humerus. Upon this supposition he acted. He laid the deltoid muscle bare by a curved incision, reflected the flap upwards, and found the deltoid absolutely normal. In palpating the deltoid he found at a point corresponding to the outer side of the bicipital groove of the greater tuberosity a hard swelling. He separated the deltoid vertically by the use of a director and came down to a hard mass, not bone, but underneath the periosteum it appeared to be encapsulated. He incised and exposed a large mass of inorganic salt-sodium bi-urate.

Dr. Senn also reported two cases of lipoma arborescens. He also exhibited the new army splint devised by Hoard W. Beale, and a combined stretcher and splint devised by Professor Stokes.

The Union of Ununited Fractures of the Neck of the Femur by Open Operation.

Dr. Leonard Freeman, of Denver, Colorado, read a paper, by invitation, on this subject. He went at length into the literature of this subject, after which he reported a case of his own in a heavy, muscular man, thirty-two years of age, who had injured the right hip by falling on it in 1903. Patient was up on crutches in about four weeks, the extent of the injury not having been recognized. When he saw him on September 23, 1903, about four months after the injury, the patient was still unable to use the limb in walking, owing to pain in the hip and knee. There was shortening of two and a half inches, with a corresponding elevation of the trochanter, although this could easily be overcome by traction, the manipulation being accompanied by indistinct crepitus.

Operation was performed Oct. 10, 1903, about five months after the injury. Anterior longitudinal incision was made external to the sartorius, through which the neck of the femur was readily exposed, and the fracture located near the end of the bone. With difficulty a mass of tough, fibrous tissue was snipped with scissors, between the ends of the fragments, which were freshened on each side of the gap with a chisel. A small incision was then made over the trochanter externally, and a hole for the reception of the screw drilled through the base of the trochanter, the external fragment of the neck, into the head of the bone. The drilling proved to be a mere form, for the bones were so soft that the blunt screw could have been pushed directly through it without the boring of a preliminary hole. When the screw was in place, its outer end projected between the stitches used in closing the wound. Owing to the softness of the bone, the parts, although receiving considerable support, were far from firmly held, so that it was possible to displace them with moderate force by rotating the limb or pushing it upwards. On account of oozing, it was necessary to pack the wound with a strip of gauze which was removed in a day or two, the opening closed, and primary union obtained. Extension a long side splint, and a pad beneath the trochanter were employed. For several days the suffering was great, necessitating the constant use of morphine. In a week or so a little infection appeared about the opening through which projected the screw, which at the end of about two weeks caused a rise in temperature to nearly 100°, accompanied by chills and much general disturbance. On removal of the screw these unfavorable symptoms subsided, showing that they were probably due to infection of the cancellous structure rather than the joint. The subsequent recovery was rapid and uninterrupted. There was about one inch shortening. In the face of various tests, the union seemed to be sound and bony. He examined the patient again, a little over six months after the operation, and found the following condition: Union apparently firm, considerable callus, flexion to nearly a right angle, rotation almost normal, and about one and a half inches shortening. There was still enough pain in the joint anteriorly to prevent the patient discarding his crutches, although it was much less than before the operation, and was decreasing constantly. When not attempting to walk, the weight could be borne upon the limb with but little, if any, discomfort. Up to the present time the case had not been a complete success, the result being marked improvement only. What the ultimate outcome would be was yet to be ascertained.

Dr. Nicholas Senn questioned whether Dr. Freeman had reached an ideal result in his case. In the years 1882 and 1883 the speaker studied this question scientifically. Up to that time it was doubted whether union by bone under any circumstances could be obtained in cases of intracapsular fracture of the neck of the femur. He produced this fracture on the lower animals by drilling the neck of the femur in different directions and fracturing it, satisfying himself in each instance that he had produced a fracture inside the capsule. He treated 23 of the animals thus experimented upon by the methods then in vogue, but in all of these 23 cases he failed. He then resorted to direct methods of fixation. Breaking the bone in a similar manner, he made use of ivory bone pegs and metallic nails. In ten experiments following the 23 failures he demonstrated that he had obtained bony union in nearly all of them. He

found afterwards that the same results in the human subject were obtainable by indirect methods of fixation by bringing the fractured surfaces in contact and holding them in apposition by lateral pressure by a splint of his own device. He had treated since that time fifteen or twenty cases, and in the majority of them could not only demonstrate excellent functional results, but union by bony consolidation.

Dr. Arthur Dean Bevan spoke of fracture of the neck of the humerus, and reported three cases upon which he had operated. In these he had made the open operation, wired the fragments, or had resected the head of the bone. He had one case of infection, which resulted in the loss of function of the shoulder joint temporarily, and endangered the life of the patient for weeks. In the other two cases he obtained union by primary intention, and the results were satisfactory.

Dr. A. J. Ochsner had followed the method of treatment described by Dr. Ruth, in a paper read before the American Medical Association, in 16 cases, two of which died. There was union in all of them. The amount of shortening in all of them was less than three centimeters. He had made the open operation in one case only of ununited fracture with painful hip. He used two Parkhill screws through the neck and the head, but the result was not satisfactory, as it was necessary subsequently to remove the head.

Dr. Alexander Hugh Ferguson had treated three cases of ununited fracture of the head of the femur by the open operation with very good results.

Dr. Freeman, in closing, agreed with the speakers that in recent fractures of the neck of the femur the open operation should be avoided. He did not think there was as much danger attending the open operation from infection as Dr. Senn had intimated. Parkhill had used his clamp in 15 or 20 cases without bad results. Infection, when it occurred, was along the tract of the screw into the cancellous tissue, and in his own case as soon as the screw was removed the infection subsided.

A. E. Halstead,
Official Reporter.

CHICAGO LARYNGOLOGICAL AND CLIMATOLOGICAL ASSOCIATION.

A regular meeting was held April 18, 1904, with the President, Dr. John Edwin Rhodes in the chair.

Dr. Rhodes reported **a case of Traumatism of the Neck, followed by Obstructive Tumor in the Larynx, with Operation, and Recovery.**

This patient, S. A. is 16 years of age, Polish, and a currier in a tannery, by occupation.

He had never been very strong, was a puny baby and sick up to the time he was 2 years of age. After that he was in fairly good health up to 2½ years ago, when he was bedridden for two months and then regained his former health. The nature of his complaint, at that time, is uncertain, although he is said to have had consumption. He has smoked a little and drank beer to a moderate extent only.

His father, mother, two brothers and sisters are all living and well, and no hereditary diseases in the family are known.

In the tannery, he had charge of a scour machine. This consisted of a broad plank, which, when a hide had been stretched over it, was carried up between two rollers; the device being operated by a belt.

On the 10th of October, last, he was adjusting the machine, having his head between the plank and the rollers, when the machine was suddenly started, and his neck was caught between them. He says this occurred three times, in quick succession; the third time his neck was held fast, the belt sliding, thus saving him from more serious injury. A fellow workman then rescued him. He did not become entirely unconscious. His neck became swollen at once and pain was marked, and he immediately began spitting blood and continued to do so for six hours. Breathing, which had been perfectly good before the accident, became difficult and the voice, which had always been clear, became very hoarse. He was taken by his physician, Dr. Laibe, to St. Mary's of Nazareth Hospital, later in the day, and an examination showed the neck to be greatly swollen from the sternum to the chin. No marks of injury were found. At this time, breathing was very labored, speaking difficult and cough was frequent. There was also marked dysphagia. Tracheotomy was contemplated but not performed, at this time. The tongue was heavily coated, breath foul, the pharynx red and covered with viscid mucus, the uvula was oedematous. No examination of the larynx was made then. He improved gradually and the more acute symptoms subsided, but he was still very hoarse and breathing was very difficult when he left the Hospital, Nov. 1st.

He returned to the Hospital, Dec. 21st, having a small abscess in the median line over the thyroid cartilage. This was opened and a grape seed was found in it, which had probably found its way into the tissues from the oesophagus. Dr. Laibe referred the patient to me on Jan. 15th. He was breathing, at the time, with a marked inspiratory and expiratory stridor. There was recession of the lower part of the chest and he was very hoarse. Otherwise, he was in fairly good physical condition. His tongue was clean, the pharynx and uvula were normal, the tonsils moderately enlarged.

On examination of the larynx, I found there was marked thickening of the ventricular bands the ary-epiglottic folds the arytenoids and the cushion of the epiglottis and such deformity of structure that the lumen of the larynx was scarcely one-fourth of its normal size. Into the lumen there projected, growing from the right ventricular band, a mass of tissue, the size of a small bean, which acted as a valve in closing the lumen, both during inspiration and expiration. After spraying the larynx with a 10 per cent solution of cocaine, the growth was seized with Frankel's Crushing Forceps but was so densely fibrous that it could not be extirpated with them.

An alarming spasm of the larynx, with increase in his difficulty of breathing, followed any manipulation in the larynx, so I decided

a preliminary tracheotomy was necessary. This operation was done three days later, and, on the 24th of January, after cocainizing the larynx, I succeeded in quickly engaging the growth in the loop of a cold wire snare, and, using some force, cut it off completely from its attachment to the ventricular band. He now breathes easily and has a fairly good voice, although the lumen of the larynx is much decreased by the distortion following the accident.

It is interesting to note that his heart is on the right side, and he has a pigeon's breast, but not to a marked degree.

Dr. Wm. E. Casselberry: I would like to ask Dr. Rhodes as to the histologic nature of this growth.

Dr. Rhodes: It has not been examined.

Dr. Shambaugh: Where was the growth located?

Dr. Rhodes: It sprang from the right ventricular band of the larynx about midway between its anterior and posterior extremities. The larynx was much distorted and the swelling of the structures within the larynx still remains. The lumen is a small irregularly triangular opening only. Breathing is not as good as it was before the injury. The boy, however, is in excellent health at the present time, and there has been no evidence of a return of the growth.

Dr. T. Melville Hardie reported two cases. (Report not handed in.)

Dr. Joseph C. Beck: This case is interesting to me because a couple of weeks ago I was in Cincinnati and Dr. Vail reported to me a similar case in which he made a diagnosis of frontal sinusitis. He operated in the usual manner, opening the frontal sinus, and this was practically all he did, he evacuated the pus from the sinus, drained, after which the patient was put back to bed. The patient did not do as well as he had expected, consequently it became necessary to do a secondary operation which, however, did not turn out as well as in Dr. Hardie's case.

Very often these cases do not do well after operation; there is a continuation of the discharge of pus as the result of epidural abscess, which does not go on to the formation of meningitis, but which requires a secondary operation. It is very fortunate that Dr. Hardie accomplished a good result in one sitting.

Dr. Wm. E. Casselberry: In consideration of the perfect recovery which has taken place in this case, after what is now considered to be a method of comparatively slight operating, I would like to ask Dr. Hardie whether it was strictly an acute case, or whether the patient gave any previous history of suppuration of any of the sinuses. Also, I would like to inquire concerning the condition of the middle turbinated bodies and the ethmoid region in general, in view of the fact that there has been such a perfect recovery. We understand that the reason why so many changes are obstinate, even after external operation, is because they are long-standing, old, chronic cases, and that there has been engendered a pyogenic condition of the membrane, with infiltration, thickening and granulation tissue, very frequently, and my inquiry is directed toward an explanation of the apparently easy recovery which has occurred in this instance. Assuming that the case was strictly an acute one of short duration, which we know will recover more rapidly and promptly than the more chronic conditions of suppuration, without extensive infiltration or ethmoidal disease, the explanation is apparent.

Dr. E. F. Ingals: I want to call attention to an operation that I recently advocated at a joint meeting of this Society and the Chicago Medical Society but which was mixed in with so many other things that it was hardly noticeable. The operation seems especially desirable for acute cases, but it would not answer in such a case as Dr. Hardie presented. However, for the majority of acute and for many old chronic cases, I believe it the best operation that has been proposed. I have operated on two patients recently by this method, which consists in passing a pilot through the normal opening and thus running a hollow bur over it enlarging the normal opening to a quarter of an inch. The opening could be enlarged to half an inch, if desirable but I thought a quarter of an inch large enough. The operation is easily, plainly and safely performed without a scar and with the new drainage tube that I have perfected appears to meet every indication excepting in the few cases where curetting is necessary.

Dr. E. F. Ingals read a paper entitled **(1) The Home Treatment of Pulmonary Tuberculosis.**

E. Fletcher Ingals: Many physicians believe that the treatment of pulmonary tuberculosis is absolutely useless unless the patients can be sent to a favorable climate; but others have such great confidence in therapeutic measures that for a time at least they hope to cure many of the cases that fall to their care.

As a matter of fact, we know that at least two-thirds of the cases of pulmonary tuberculosis recover for statistics show that only 12 per cent die of this disease and autopsies show that 25 per cent have recovered from it. Of the very early cases the proportion of recovery is greater than this; but when the disease becomes well marked it is probable that less than 25 per cent recover. While there is no specific treatment for this disease, I believe that the painstaking physician may greatly prolong the life of many of the well marked cases and may practically cure a considerable number. It should be understood that no case can be considered cured in less than two or three years, and none can properly be termed cured unless all distinct signs of the disease have disappeared, however, those cases in which the disease is arrested even though signs remain are practically cured if the disease does not again become active. You and I can recall many cases that would come under one of these heads; but we can not often be sure of the cause of betterment. I believe that the so-called antiseptic treatment is often beneficial, the open air treatment about equally so, and forced feeding is more important than either, while tonics, digestive agents and anodynes that do not interfere with the ordinary functions of the body are also of much importance. Nothing should be given that will interfere with digestion. To

do the best for our patients, we should generally combine all of these and when practicable the sufferer should be placed in a good climate; but often this is impracticable and for such cases we must do the best we can at home. I wish to cite only two cases in illustration of what appears to me the best course to pursue with these unfortunate sufferers.

The following case illustrates the effects of home treatment with as liberal feeding as possible aided by tonics and digestive agents, anodynes to prevent excessive cough, and antiseptics in large doses. In this instance open air living could not be secured.

Mrs. B. A., age 31 came to me March, 1901. She had suffered from a dry cough and some shortness of breath for about six months. She stated that she had had pneumonia 2 years before but had generally been healthy. She had some pain under the scapulae and in other portions of the chest wall especially in damp weather, but had never suffered from rheumatism. There was no hereditary history. The weight normally was 120 lbs., but at this time only 111. She was anaemic, the haemoglobin being only 35 per cent. When I first saw her the pulse was 98 and the temperature 100°. There was considerable dry cough but very little expectoration and there never had been haemoptysis. The appetite was very good but the digestion poor. She was habitually constipated. The urine was normal. The nasal cavities and the larynx and trachea were normal. Upon examination of the chest I found marked dullness at the right apex above the clavicle and moderate dullness extending as low as the third rib. The respiratory sounds were broncho vesicular in the same region and posteriorly similar changes in the resonance and breath sounds extended from the apex 1½ inches below the spine of the scapula; over other portions of the chest the resonance and respiratory murmurs were normal. The heart and abdominal organs yielded no signs of disease. Numerous tubercle bacilli were found in the sputum. Two weeks later it was stated that the patient had taken cold about the time I first saw her and was coughing more than before. In addition to the signs already noted there were feeble respiration and numerous rales over the upper part of the right lung. The pulse was 136 and the temperature 102.4°. I ordered the Ext. of Nux Vomica grs. ½ to improve the digestion, Ext. Hyoscyamus grs. ¾ to relieve cough, Ext. Cascara Sagrada grs. 1-3 for the constipation and the Sulpho-ichthyolate of soda grs. 7½ for its antiseptic properties, to be taken four times a day before eating and at bed time and to be followed by a glass of milk. A week later she reported herself some better and the next week much better. The Ichthyol was increased to 12½ grs. otherwise the same remedies were continued. A week later she reported that she was coughing more, but that there was less expectoration. The appetite was variable but strength better; pulse 96, temperature 99.2°. At this time I was obliged to add a sixth of a grain of Codeine to the prescription and to increase the Ext. of Hyoscyamus to 1 grain in order to moderate the cough. Three weeks later her general condition was the same but the pulse was found 120, temperature 99.8°, strength not very good. At the next visit 10 days later she reported that she had no cough, felt better and slept well, pulse 96, temperature 99.6°. Ichthyol was increased to 15 grains, Ext. Nux Vomica and Ext. Cascara were each increased to 2-3 of a grain, the Ext. Hyoscyamus was continued at 1 gr. Codeine was discontinued. At the next visit June 7th, temperature was only 95.6°, pulse 90, appetite improved; she had gained 8 pounds and was weighing then 119. Thus the history continues, the remedies being given in essentially the same way; the pulse and temperature varying more or less from time to time for the next 7 weeks, when it is noted that she had been coughing badly for 3 weeks, did not feel very well, pulse 124 and temperature 99.8° but she weighed 120 pounds. There was no material change in the physical signs but there were no rales over the chest. At this time one-eighth of a grain of Allen's Ext. of Cannabis Indica was added to the prescription for relief of cough and she was given a cough syrup containing ¼th of a grain of Codeine, 10 grs. of Bromide of Sodium, and 7½ grs. of Chloral in Cascara Cordial. This was only to be used when the cough was extreme and not to be taken regularly. Three weeks later the cough was much better but the temperature was still 99.4°. Essentially the same medicines were continued. On October 4th, nearly two months later, it is noted that she weighed 123¼ pounds. She slept well, the appetite was fair and there was but little cough, and a month later it is noted that the pulse was 110, temperature 99.9°, but she weighed 128 pounds. At her next visit a month later she said that she had been poorly for some time after the last visit. At this time her pulse was 105, temperature 99.2°, but she weighed 130 pounds. At her next visit 7 weeks later it is stated that she had not coughed at all since the last visit. The signs of consolidation at the right apex still remained though not so marked as formerly. The pulse was 96, temperature 99.4°, but she weighed 134¾, tubercle bacilli still remained in the sputum. I saw her subsequently at irregular intervals varying from 4 to 8 or 12 weeks. She had very little cough, practically no expectoration and felt pretty well. On the 17th of December about 21 months after I first saw her, it is noted that there was no expectoration. The pulse was 90, temperature 98°; she weighed 136; the respiratory sounds were normal on ordinary respiration, but on a forced breathing a few bronchial rales and some harshness of respiration were found over the upper part of the right lung and the respiratory sounds over the lower lobe were feeble. In the latter part of February, 1903, it is noted that she had taken another cold and was not quite so well. There were still a few tubercle bacilli in the sputum. Essentially the same remedies were continued. Two months later it is noted that she was feeling much better. The pulse was 104, temperature 99.6°, weight 136 pounds. At this time she was given Thiocol 10 grains in a dose four times a day which was subsequently increased to 20 or 25 grains at a dose. October 6, 1903, the respiratory sounds at the apex of

the right lung were only about 2-3 as intense as on the left side. Her weight was 135½, temperature 98.8°.

It will be seen that this patient had gained from March 29, 1901, to October 6, 1903, over 24 pounds in weight. She had lost her cough and temperature, she was to external appearances well and she felt well, although there were still evidences of the old trouble in her lungs. I believe that the improvement was mainly due to the effects of the medicine in stimulating her appetite, promoting digestion and preventing excessive cough, but I think that the benefit was also dependent to a considerable extent upon the so-called antiseptic treatment, for she certainly appeared much better when she was taking it than at times when it was temporarily discontinued. She had not been at all particular about keeping in the open air but had eaten fairly well during the course of treatment and had taken palliative internal remedies practically all of the time.

The following case illustrates the benefits of the open air treatment. It was prescribed at first but it was not followed out with any persistence until after she was put to bed with pleurisy last fall.

Miss H. M., age 32 came to me the 23d of July 1903. She had never been very strong and said that during the winter of 1901-2 she coughed for several months but the cough ceased in the summer of 1902. In November of that year she had pneumonia and her cough had continued during the winter but had been much worse since she had taken cold in May 1903. She stated that she had always taken colds easily and that she had a prolonged attack of malaria several years ago. There was no hereditary predisposition to disease. At the time she called to see me, she was coughing a great deal so that she was kept awake at night and was expectorating two or three ounces daily. She was very weak and her flesh was reduced to 96¼ pounds; her average weight had been 107. She had a very poor appetite and much thirst. She was anaemic, the haemoglobin being only 45 per cent. The urine was normal. She had had night sweats for about 6 months. I found her pulse 132 with occasional intermissions and a temperature of 103° F. at 11 o'clock in the morning. She was hoarse at times indicating some slight involvement of the larynx but there were no signs of disease either in the nose or throat excepting peculiar pallor. At both apices, more marked upon the right side, there was dulness with broncho vesicular breathing and a few subcrepitant rales as low as the first rib in front. On the right side, posteriorly, similar signs extended an inch and a half below the spine of the scapula. There were also a few indistinct rales at the left apex and the respiratory sounds were only about ¾ as intense as on the right side. The heart was of normal size, action rapid and occasional intermitting. There were no signs of disease over the abdomen. Numerous tubercle bacilli were found in the sputum.

She was given grs. 1/3 of the Ext. of Nux Vomica, grs. 3/5 of the Ext. Hyoscyamus, grs. 1 of Muriate of Berberine and grs. 3 of Ingluvin, four times daily. When she called a week later her pulse was 132, temperature 100° F. She had been in bed most of the time since her last visit. The cough and expectoration had been very troublesome especially at night. At this visit the Hyoscyamus was slightly increased the other remedies continued and she was given 10 grains of Thiocol three times a day after eating followed by a glass of milk. Two weeks later she reported that she was better, but her pulse was 134 and temperature 101½ at 11 o'clock in the morning. Besides her usual meals she was taking two quarts of milk and one egg daily. Three weeks later it is noted that she had been troubled with nausea and diarrhoea so that all medicines had been discontinued, according to my instruction that she should take nothing that disturbed the digestion no matter how much I would like her to have it. At this time the pulse was 120, the temperature only 99.6. She had practically recovered from the digestive disorder and was again taking two quarts of milk daily, but she weighed only 94½ pounds having lost two pounds since the beginning of treatment. The Thiocol was temporarily suspended, other remedies were continued about as before. Two weeks later she had gained nearly two pounds. Her digestion was good and she was taking two quarts of milk and one eggnog daily in addition to her regular meals which were not very large. At this time I ordered that 15 drops of guaiacol be rubbed upon the chest twice daily to relieve pain and fever. She was given Brucia Phosphate 1/12th of a grain, Ext. Hyoscyamus ¾ of a grain, Allen's Ext. Cannabis Indica 1/6th of a grain, Ext. of Digitalis ¼th of a grain with Papaine and Diastase each two grains before each meal and at bed time. At the end of the week she reported herself much better. Palliative remedies were continued and she was given Thiocol 15 grains three times daily after eating and followed by a glass of milk. She continued to gradually improve and two weeks later on the 29th of September, it is noted that she weighed 99½ pounds, but the pulse was still 132, temperature 99.5. She continued with essentially the same remedies though ¾ of a grain of the sulphate of spartain was substituted for the Ext. of Digitalis and a month later it is noted that she was taking 25 grains of Thiocol three times daily, two quarts of milk daily and weighed 106 pounds. Her pulse and temperature remained about the same. About this time she again had disturbance of the stomach but she did not attribute it to the medicines. At the next visit her pulse was 120, temperature 100. The remedies were continued but shortly afterward she had an attack of pleurisy for which we put her to bed where she remained about 4 weeks. During the winter she was seen at her home occasionally, by Dr. E. L. Kenyon. Although she had been directed to keep in the open air all of the time, she had not carried out the instruction until she was seen at her home when the pleurisy developed. It was found that poverty made it very difficult for her to live in the open air as it compelled the rest of the family to do the same, however, afterward she had her windows open continually night and day. There was

no porch so that she could not sit out of doors. She lived in a flat heated by steam by which the temperature was moderated during the day, although it sometimes fell very low during the night when the steam was shut off. After she went to bed with the pleurisy she took merely the tonics and the palliative remedies for cough, but discontinued the Thiocol. She continued the forced feeding most of the time diminishing it a little, occasionally when the stomach was disturbed. During the last week she was in bed the temperature ranged from 98.2 to 99.6. She was then allowed to be up a short time each day. During the next two weeks the temperature usually remained normal but on three occasions was found above 99, once reaching 99.4. In addition to the milk it was directed that she take 6 eggs daily, but the price of eggs was so high that she was not able to do it. On the 3rd of January 1904 it is noted that the dullness at the right apex remained practically the same as at first but there were no rales over any part of the chest. She was gaining some strength but still had a pulse of 132. All internal remedies had been discontinued for about 3 weeks but stomachic and cardiac tonics, with the Ext. of Hyoscyamus and Cannabis Indica as anodynes were again ordered and three weeks later it is noted that she had improved in strength; there was less cough and the digestion was good. The highest temperature during this time had been 99.2. She formerly complained of her feet being cold, but now they kept warm. The latter part of February she thought that she had taken cold and was coughing a little more. She was living in the open air all of the time taking two quarts of milk daily and was in bed most of the time. She weighed 111¾ pounds. She said that on account of keeping the windows open at night she had frosted her nose two or three times during the winter. The physical examination of the chest showed that the signs of consolidation were somewhat diminished at both apices. I last saw her on the 4th of February, when she stated that she felt very well but her pulse was 140 and temperature 99.2. Her weight was 111 pounds, a gain of over 15 per cent since she first came under my care.

During the first three months of the treatment she had relied upon medicines and nourishment but had not kept in the open air. However, she had gained about 10 pounds in weight. During the last 5 months of treatment she had remained in bed most of the time because it was too cold for her to be up. She had not received any Thiocol but she had taken tonics and palliatives most of the time with abundance of food, and she had lived constantly with her windows open. During this time she had gained 5 pounds in weight and had coughed very little. The last time I saw her she was very much better than 8 months previously so far as the general appearance was concerned. The pulmonary signs were less but the pulse was still rapid.

(2) Removal of a Pin From the Lung Per Vias Naturales with Bronchoscope and Forceps.

E. Fletcher Ingals: A young lady suffering from a foreign body in the lung was recently referred to me March 23d, by Prof. Senn. She stated that nearly a year ago she had drawn a large glass headed pin into the trachea and that it had caused severe cough, expectoration and at times choking spells and pain. About six weeks previously Dr. Allison of Brownwood, Texas, had done tracheotomy, but as it was impossible to find the pin he had closed the wound, which had healed quickly. A radiograph taken at the Presbyterian Hospital had located the pin, head downward in one of the divisions of the right bronchus. I operated the next day, assisted by Drs. G. H. Kennett, A. M. Corwin, O. T. Freer and N. P. Colwell. I first administered gr. 1-60th of atropin hypodermically, to check secretions, then gave chloroform and when anaesthesia was nearly complete, sprayed the larynx and trachea once with a solution of cocaine 10 per cent and suprarenalin 1 to 4,000 guarded by atropin, strophanthin, carbolic acid and oil of cloves as in the solution I use for anaesthetizing the nares. I then introduced a Killian bronchoscope, 34 c.m. in length and 8 m.m. internal diameter, through the larynx down into the right main bronchus and one of its larger branches. The parts were illuminated with a small Chicago Electro Appliance No. 1 (cold) lamp with carrier 33 c.m. in length, that I had made for the special purpose. The secretions and a very little blood were repeatedly swabbed out with cotton and the parts touched with the same solution of cocain. I carefully explored the three branches of the bronchus and with a blunt hooklet searched for the pin which I did not succeed in bringing into view for about three quarters of an hour. Finally with the hooklet I brought it across the end of the tube and demonstrated it to Prof. Senn and to E. J. Senn, S. A. Friedberg, J. F. Dolamon, E. L. Kenyon, to my assistants, and to several other physicians who were present. I then caught it with Killian's tube forceps and tried to bring the end of it into the bronchoscope but although I released it several times and manipulated it in various directions, I could not succeed, therefore, I finally grasped it firmly and drew it and the bronchoscope out together. In doing so the pin was bent to an acute angle near the head, and it must have caused some injury to the parts evidenced by a little soreness the next day, but this disappeared in a few hours. There was a temperature of about one degree two or three hours after the operation, but no fever subsequently. Three days later she returned to her home in Texas. The pin was of brass 4 c.m. long and the glass head measured 5½x8 m.m. in diameter. It was apparently lodged in a division of the bronchus passing downward and backward, but I was unable to see the head at all and could see nothing of the pin itself until I swept it across the end of the tube with the little blunt hooklet.

Dr. Otto T. Freer: Dr. Ingals has mentioned me as having been present at the operation he has described. I admire very much the courage and perseverance he displayed during its performance, but the simple description he gave of the procedure does not give an adequate idea of its difficulties. The position is a

strained one for the surgeon and the operation is so new that to undertake it justifies some trepidation. What struck me was the safety with which it was done, for with the tube once introduced past the glottis the patient breathed so satisfactorily that the search for the bronchus containing the pin could be done with deliberation.

The fact that the patient had a long and flexible neck aided the passage of the bronchoscope, but even in the case of a patient with a short neck, if the tube be introduced in front of the upper bicuspids at the side of the mouth, it may be made to enter the trachea.

Dr. Ingals' method of illumination is a great improvement on the Kirstein light and the beautiful view of the bronchi obtained with it was astonishing to one who has never looked into them during life. Nevertheless the Kirstein light answers the purpose well for when burning brightly enough it enables one to read fine print at the bottom of the tube. Its chief objection is that it lights up the walls of the bronchoscope so much that the field beyond appears dark by contrast. This difficulty is obviated by Dr. Ingal's light, whose slender stem does not materially interfere with manipulations in a bronchoscope of ordinary size. During the operation a great deal of wiping is needed and an assistant has to make swabs continually.

I wish also to say a few words regarding the paper on tuberculosis. Recent work, especially that of Maragliano has shown that recovery from tuberculosis depends upon the acquirement of immunity to the tubercle bacillus and that the fatal progress of the disease is due to lack or loss of this quality. The extensive statistics of Naegeli of Zurich, based on autopsies, shows that the age of the individual is one of the factors that has an influence on his resistance to tuberculosis. Thus Naegeli proves that though by the time people reach middle age practically all persons possess tubercular lesions acquired during their lives, yet the great majority of these foci are latent and non-progressive because the majority of individuals is relatively immune to tuberculosis and its advance is therefore not possible. Naegeli shows that in a general way, the younger the individual infected, the less immunity does he possess to tuberculosis and the more likely is the disease to extend and become fatal. Thus, though the number of bodies of children showing tubercular lesions, was small, the disease in them was nearly always lethal, while in older people, though many more bodies were found infected, in a proportionately much smaller number was the tuberculosis the cause of death. Thus though immunity to infection with tuberculosis hardly exists, successful resistance to its advance increases with years and is a natural possession of the majority. This natural immunity may be so great that it is not overcome by serious depreciation of health, loss of weight, poor nutrition and other things well known to often lead to actively progressing tuberculosis. On the other hand certain vigorous persons in spite of blooming health offer but slight resistance to tubercular infection, resembling guinea pigs in their tendency to the disease. The large number of persons who acquire tuberculosis because of faulty manner of living and consequent depreciation in health and not because of a strong predisposition to it are the hopeful patients, whose immunity may sometimes be restored by hygienic measures, open air treatment and forced nutrition. It is not easy to fortell the patients power to establish immunity, hence the great diversity in the results of treatment, some persons with but moderate subceptibility to tuberculosis readily acquiring full immunity, from merely hygienic measures and thus arresting the disease, while others, in spite of gain in weight and health for a time do not become immune and cannot stop the advance of the tubercle bacilli.

As an example, I cite the case of a young woman with florid phthisis with high fever and emaciation who, by means of home treatment, with her windows open in winter for fresh air, gained beyond her normal weight and became free from fever, with improvement of the physical signs, but who after some months, though the same favorable conditions continued succumbed to a malignant recurrence of the disease, as immunity was not established.

As an aid to the creation of immunity I have had good results from the use of Dr. Carl Von Ruck's watery extract of tuberculin. The effect in one case seemed especially brilliant. A girl of twenty had rapidly advancing tuberculosis of the right lung with involvement of the upper lobe to the fourth rib in front, high hectic fever, sweats, and rapid emaciation. Nitrogen gas collapse of the lung and hygienic treatment were tried without benefit for four months. At this time the use of tuberculin was begun and within three months all fever had subsided, the pulmonary signs had become entirely normal and for two years now the patient has remained free from disease. Others whom I have induced to use tuberculin after the manner of Von Ruck have related to me similar experiences.

In spite however of some favorable results the majority of individuals manifesting, progressive tuberculosis are not able to become immune to the tubercle bacillus no matter what means are employed and the disease goes on unchecked, but the few hopeful cases that do become resistant enable us to hold out hope for all cases not too far advanced.

Dr. A. H. Andrews: The case reported by Dr. Ingals reminds me of one which I saw in 1896. The patient, a young man, came from Minnesota. Examination of his lungs showed well-marked symptoms of tuberculosis, and the microscope confirmed the diagnosis. There was elevation of temperature, in fact, every indication of tuberculosis. He could only stay in the city a few days. He went up to one of the Northern suburbs, and on his return called at my office complaining of sore throat. He expected to take the train that night for his home in Minnesota. Examination of his throat showed symptoms of diphtheria. This was confirmed by microscopical examination, and he was placed in one of the isolation wards in one of the hospitals here. The diphtheria pursued the typical course for three days. Antitoxin was not used. At the end of that time the throat trou-

ble cleared up, and much to my surprise, his temperature, which had been uniformly high, became normal; appetite improved; cough improved; and a week later, when I examined him for tubercle bacilli, none were found. I was surprised to see the case continue to improve. He remained in the city four weeks, during which time I examined the sputum frequently and after the attack of diphtheria I never found tubercle bacilli. Specimens of sputum were sent to me, first, every week, then every two weeks, and later every month, for six or eight months, and I was unable to find the tubercle bacillus. I heard from the patient between one and two years ago; he was teaching school, and there has been no return of the tuberculosis.

The question arises whether the toxins of diphtheria may not have been destructive to the tubercle bacilli in this case. I am sure, that the medicine which was given could have had no such effect upon the bacilli. There had been no open air treatment; no treatment that could have been expected to bring about such a result as was attained in this case.

I would like to ask if such cases have fallen under the observation of any of the gentlemen present. I have reported this case to a number of practitioners, and they have informed me they have not seen anything like it. This is the first time I have reported the case in a Society meeting. Later, I expect to gather all of the data and make a formal report of this interesting case.

Dr. Homer M. Thomas: A distinguished practitioner of Chicago once said to me that when a physician is summoned to a mortal case, the patient dies; that when the disease is not mortal, the patient recovers, and I am an advocate and an adherent of that pessimistic belief. I, probably, have experimented with as much esthusiasm as any physician in this city with reference to the various methods of home treatment for the cure of tuberculosis, and after alternating between varying degrees of optimism and pessimism, and after a retrospect of some years of work along this line, I am led to believe that our knowledge of the physiological condition that predisposes to the formation of connective tissue in the lungs or in the throat, which, as you know, is the process by which all tubercular foci are finally arrested and cured, is entirely inadequate. Being inadequate, we have no definite therapeutic or pathologic basis upon which to rest any system of therapy that can in any sense be conclusive. You all know how the Shurly-Gibbs treatment, with its iodine and gold injections, and its gas inhalations, was received by us with great enthusiasm. We have all had experience with the open air or outdoor treatment of tuberculosis, and none believe in it more than myself. We have run the gamut of antiseptic treatment, and we have tried antiseptic inhalations. We have also tested the value of beechwood creosote, iron products, thiocol, and what-not; yet today, it does not seem to me that in the light of the knowledge we have of the pathologic and histologic properties of the tubercle bacillus, we can accomplish very much, and certainly no germ has been more thoroughly studied and its characteristics more definitely known than the tubercle bacillus. It seems to me, that we are not advancing in our knowledge of the methods which tend to control tuberculosis. I think the outdoor treatment of tuberculosis is as rational as any, and the coincidence of its use and improvement in the cases that have been so adequately described is very fortunate, and makes one optimistic. But I question whether we have a substrata of pathologic knowledge by which today we know tuberculosis is cured; that is, as to what produces that essentially constructive process in the system which tends to the elaboration, production and extension of connective tissue formation. In the absence of that knowledge, I must speak from a somewhat pessimistic standpoint, feeling that the treatments that are advanced are more empirical than rational, and therefore, broadly speaking, the cures are more coincidence than they are the necessary results from any therapeutic remedy or remedies we may use.

Dr. F. G. Stubbs: I was fortunate in seeing the bronchoscope used several times last winter by Chiari and others and perhaps it would not be out of place to say how it was used, differing a little from the method spoken of by Dr. Ingals. I assisted Hajek in using the instrument three times. The patients were subjected to local anesthesia. The throat was well cocainized, as well as the larynx; the bronchoscope was passed into the larynx, and a sound, with cocaine on a pledget of cotton at the end, pushed on down the trachea, and that was anesthetized. The operator waited a few minutes, and again applied cocaine, so that ultimately the whole respiratory tract to the bifurcation of the trachea was thoroughly anesthetized. In one operation where a small growth was removed for diagnostic purposes, the patient stood the tube in position for fifteen minutes. The patient sat on a low stool, while the assistant sat on a chair at his back, with his knees pressed into the patients back, so as to throw the shoulders markedly backward. The head was drawn further backward toward the assistant's chest, and with the patient in that position the tube could be passed easily. The operator stood at the side of the patient, so that he merely had to look down while manipulating. In some cases it caused quite a little coughing until the patient was well anesthetized. The instrument used was a modification of the Killian; I do not remember the name of it. But the light was very much more powerful than the one from the instrument shown by Dr. Ingals. The electric lamp was about opposite the handle of the Killian, and the light reflected in at right angles by the use of the mirror. It illuminated the whole field brightly, and at the same time gave the full diameter of the instrument for operative measures. In two cases I observed the patients were on the table, with head thrown back, as Dr. Ingals has just described. It seems to me, for an extended operation it would be well to place the patient under the influence of a general anesthetic, as by so doing we do not have any compunction about taking a longer period to do the operation. It is much better than to have the patient fully

conscious, for it becomes very painful in a few minutes for the patient to accommodate himself to the strained position.

Dr. Joseph C. Beck: I want to congratulate Dr. Ingals on the success of this operation, I believe it is better to use general anesthetic and not local as Dr. Stubbs has mentioned. When I was in Freiburg I saw many attempts under local anesthetic without result.

With reference to the paper concerning tuberculosis, I remember very well that Dr. Babcock always used to begin his lectures a long time ago by saying, "Gentlemen, I am going to talk about a disease which is curable in the rich and well-to-do people." And so, it is in the treatment of tuberculosis, many of the remedies the doctor described are too dear for the average patient, and such patients cannot have the things and facilities at their command that the well-to-do people have.

The open air treatment of tuberculosis is very interesting. I have watched it in places where the patients are sent in this country and abroad, as, for instance, in California or in Colorado, and a couple of weeks ago I returned from a trip to Asheville. While there I visited the Sanitariums of Von Ruck and Dunn. In those institutions the open air treatment is carried out with the aid of injections of tuberculin. Dr. Dunn informed me that he rarely has a case but what gets injections of tuberculin. The reports he made to me were very gratifying. He has had spendid success. I saw some of his patients and they looked well. They get very little medicine. The tents are built on the style as in Ashland in Germany, and the patients live in these tents in the winter as well as spring and summer. When the weather is bad, they go to the main buildings. The only drug that they seem to be using universally is guaiacol.

Dr. Herman Stolte, of Milwaukee, Wis.: As to the remarks of Dr. Freer regarding the treatment of tuberculosis by tuberculin, and the good results he obtained, I will say that my experience with this treatment is as follows: Shortly after the recommendation of the tuberculin treatment in 1892 by Koch, nearly thirty patients of the tuberculosis ward of the large military hospital in Strasburg were entrusted to my care in order to try the tuberculin cure according to Koch's method. The recommended small initial doses of 1/10 milligram produced a rather strong reaction. I at once reduced the dose to 1/30 milligram. The same small dose was injected as long as there was any reaction, such as a small rise of temperature, 99° to 99.5°, general feeling of discomfort, and local reaction in the surrounding sphere of the diseased part of the lung manifested itself. When the body did not show any local or general reaction, the dose was very slightly increased. In the course of five or six months the final dose of five to six milligrams was reached.

General medication was not used except a sedative when the cough was distressing, or a stimulant for the patient's appetite; but physical treatment, such as ablutions very frequently, open air, and an abundance of proper nourishment, were freely used. The cure was tried only on selected patients exclusive of those who showed destruction of the lungs to a great extent, but, on the other hand, patients were treated who manifested the first signs of consolidation and catarrh of the apices. All the patients showed a greater or less amount of tubercle bacilli in the sputum, some to the greatest extent, and many of them suffered from night sweats. In the course of the treatment one could observe signs of local tuberculin reaction, such as an increase of the dull area, and also of the clicking rales around the primary zone of the disease. But there was a gradual recession of the diseased area. Of thirty cases, four were absolutely cured, so that there was positively no physical or bacteriological sign of the previous disease, although two of these cases had acute progressive consumption. In two of the cases I had the opportunity to verify the cure after eight years. The other two cases I did not see afterwards. Of the other fifteen cases, all showed marked improvement in every respect, such as increase of weight, decreased amount of sputum, and a decrease of the physical signs of the disease. Of the remaining cases, one did not show any improvement. These marked results were in my opinion due to the creation of an immunity against the tuberculous virus by tuberculin; also to some extent due to the use of the applied general treatment physically, which is prone to improve the metabolism of the body. I have experienced that the best results are obtained by using the tuberculin treatment at home, or in a sanitarium, for a period of about five months, and then discontinuing the tuberculin treatment, and sending the patient into the woods or mountains for two months to obtain a plain open air treatment, and on his return recommence the tuberculin treatment, beginning with larger initial doses, according to the reaction.

Dr. Ingals (closing the discussion): There is very little to add to what has been said regarding the treatment of tuberculosis, but it is gratifying to note that we are all practically agreed about it. There are none who would vaunt any specific treatment, but I judge from what has been said that all are in favor of doing the best we can with the means at our command.

With these patients it is especially important to maintain the appetite. This can be done partly by the open air treatment, and there is no question that certain internal remedies often have a similar effect.

It is important, too, to check excessive cough which keeps the patient awake a large part of the night, and is often the immediate cause of high temperature. High temperature prevents patients from eating, so that remedies for checking cough are indicated, provided we do not use opiates, which nearly always do harm. Last summer I visited two of the best sanitaria in this country. When being shown over the second one by the superintendent, I was introduced to the cook, a large, healthy looking man, who had been a patient at the first, some years previously. I remarked to him, "This sanitarium is about as good as the one at ———. He replied, "It is better." I asked "Why?" He replied,

"There, they were coughing all night long; here they do not cough." In this sanitarium they carry out the open air treatment and good feeding as well as can be but the patients are also given anodynes to quiet. We must not be discuraged in treating these cases, although with many we cannot help being pessimistic about the ultimate results. There are many that can be cured or that will get well if we give them a fair chance, and they must be encouraged for the patient who gives up is lost. I stated that sixty-six per cent of the cases of pulmonary tuberculosis get well, and I have no doubt the percentage is even larger than this as stated by Dr. Freer but the majority of those who get well have had the disease so lightly that they have had very little to do with physicians.

I was interested in Dr. Stubbs' statement about the use of the bronchoscope by Hajek and Chiari. It appears that the illumination they employ is better than the Kerstein lamp, and it might sometimes be better than the one I have shown. The illumination with this little lamp is much better than I can get with Kirsteins.

Dr. Freer referred to the ease with which my patient breathed after the bronchoscope had entered the trachea, but this is not always the case; for usually the patient would get very little air through the glottis about the tube and when he instrument has been passed into the bronchus very little if any air could reach the opposite lung through it unless special provision was made for it as directed by Killian through an opening on the side of the instrument above its end. Instead of a single opening I shall have about 35 small holes, each one and a half m. m. in diameter, drilled through my bronchoscope from five to ten centimeters above its end so that when it is passed into the bronchus, the patient will get as much air through these openings as through the end of the tube.

Dr. James T. Campbell read a paper entitled **The Subcutaneous Injection of Paraffin for the Correction of Nasal Deformities.** (Report not furnished.)

Discussion.

Dr. F. E. Ingals: The author of the paper reiterates a statement that I have seen before to the effect that when paraffin has once been injected its position cannot be changed. I think this an error although I have no doubt that generally speaking, it is correct. In one of my cases, the paraffin accidentally passed down the side of the nose, and made an undesirable prominence that I think I corrected at a subsequent visit. I kept pads of gauze on the nose soaked in hot water at a temperature of 135° for fifteen or twenty minutes, then by manipulation with the fingers, I got rid of the swelling and must have moved the paraffin, which had a melting point of 108° F.

Dr. A. H. Andrews: I think it is a good plan to report unfavorable results as well as favorable ones. I had one case in which a deformity of the nose was corrected beautifully, and everything remained satisfactory for probably six or eight months; then the patient, a young lady, had a little pimple on the nose. She gave it no attention, and it apparently opened internally, that is, into the paraffin. I saw her a few months later, when there was evidence of infection in the mass of paraffin which had been injected. A number of particles of paraffin came out before I saw her, and I removed a number which were at the site of the old pimple. I have not heard from her. The infection was unfortunate, and I do not know what will be the outcome of the case.

Dr. P. J. H. Farrell: There is one point about the use of paraffin which the author did not mention. I have found that in using paraffin in the correction of nasal deformities it is a mistake to take more paraffin into the syringe than you require, over correction is an annoying accident that it is well to provide against. Again in withdrawing the needle you are liable to draw a thread of paraffin out through the puncture in the skin which will keep it open and leave a small scar. In case there should be infection, there is no difficulty about the treatment. It is the same as other cases of infection.

I injected 60 grains of paraffin in one case and transformed a very ugly saddle back nose into an attractive Grecian style. The patient, a very noted professional athlete and a champion boxer celebrated the improvement in his personal appearance by a very liberal indulgence in intoxicants that night and for three succeeding days. When he reported to me on the fourth day, the nose was much swollen and some pus had formed. I evacuated the pus, applied ice cold boric solution. I found the following day that it was necessary to remove part of the paraffin to effectually get rid of all the pus. Recovery was prompt, and I filled in the cavity made by the removal of part of the paraffin with a second injection and the patient had no further trouble. The operation made possible a new and very remunerative career for this patient. He now draws a large salary upon the stage, which was not possible with the repulsive nose. This "paraffin nose" has stood the test of many hard blows without injury.

Dr. Norval H. Pierce: Probably the greatest danger from paraffin injections is embolus. If we enter a vein in making these injections we will get blood. I am having constructed a syringe which I think will obviate this danger. I do not know how it is going to work, as I have not had any practical experience with it. However, I believe it is practical. (Dr. Pierce drew a model of the syringe on the blackboard.)

Dr. O. J. Stein: The point brought out by Dr. Pierce has been in my mind frequently in doing this operation. I try to obviate this possible danger of embolism by inserting the needle, unscrewing the barrel, and seeing if there is any flow of blood from the needle. If there is none, there is no objection in screwing the barrel on again and injecting the paraffin. I have never encountered any trouble in having the needle full of air or in injecting anything else. I can see if anything comes out of the needle and if nothing comes out, then I screw the barrel on and press the piston home.

Dr. Joseph C. Beck: I rise to depreciate this method of using paraffin for the reason that I have used it in a good many cases and speak from experience. I reported to this Society a case of defect of speech with shortening

of the antero-posterior diameter between the velum and post wall of pharynx, and since then Dr. Gradle complimented me on the result obtained. I want to report that in that case, which many of you saw, the paraffin has sagged almost one-quarter of an inch in a year. Paraffin does not stay where you inject it, particularly under mucous membranes. I depreciate the importance of using paraffin in so many of these deformed noses, because it is so easy, when many men can and would do intranasal operations for the relief of stenosis, and in some way straighten the nose, whereas the injection of paraffin under the skin is so easy that many men are led to use it when other measures could be undertaken, and it does not do away with the intranasal obstruction. In such cases the paraffin does harm.

I want to report briefly the use of paraffin in a case of complete resection of the upper jaw, with restitution of the shape. The patient was a young woman, twenty-four years of age, who ten years previously had the upper jaw resected for sarcoma, with no recurrence of the disease. I injected the case about fourteen times. Once or twice I made the injections with great caution, having in mind the danger of embolism. I inserted the needle, then waited to see if any blood came out, after the manner recommended by Gersuny in the use of paraffin. No blood having escaped, I injected the paraffin under the mucous membrane of the cheek and never had the least trouble. I do not say that embolism cannot occur.

Dr. Campbell (closing the discussion): With reference to the remarks of Dr. Beck, notwithstanding the fact that paraffin is injected subcutaneously, I see no reason why the shape of the nose should not be improved or altered, even if there is nasal obstruction or stenosis, this can be overcome later, or it can be done before the paraffin is injected.

In regard to the danger of embolism from injections of paraffin, referred to by Dr. Pierce, if it is used with the melting point at 112° F. the danger is comparatively **nil.**

Dr. Pierce also spoke of the danger of injecting the paraffin into a vein. If one injects it subcutaneously, and in the mid-line there is no danger of getting into a vein.

Dr. Farrell spoke lightly of injecting too much paraffin at one time, saying that it is easy to rid of the excess of paraffin if it cause irritation. It is much better however to inject a small quantity at a time rather than try to overcome the deformity at one injection.

The Dunbar Method of Treating Hay Fever.

Dr. O. J. Stein: I simply want to show you Dunbar's serum and powder, which probably some of you have seen. I have nothing to report except that I have had this serum since December of last year. Dr. Dunbar very kindly sent me a small quantity of it. Recently he sent me some more, through one of the manufacturing houses, and I have had occasion to use a little of it in an experimental way. But I am not ready to make any official report on the few cases I have had, so I will only show you what I have here. At the same time, he sent me a little of the rye toxin to experiment with in the early forms of hay fever, or the June form, as it is frequently called. I received the antitoxic serum too late to use it in any hay fever cases, and had to confine myself entirely to experimental work with the toxin. This small vial contains some toxin of the rye pollen; and this vial (indicating) contains the liquid antitoxin produced from the Indian corn. In a third vial we have the powder form of the antitoxin. The liquid is preserved with carbolic acid. For the use of the liquid antitoxin there is a small vial, with it a tube containing a pipette, in which the antitoxin is poured, and a small amount is taken out as required. There is no danger of contaminating the original bottle. I will say that I find a great many physicians under the impression that it is used the same way as any other antitoxin, namely, injected hypodermically, and the patient visits the physician once or twice, receives an injection, and that is all that is necessary. But it is quite the contrary. The patient is furnished with this remedy and uses it himself. He buys it at the drug store, where it is for sale, and carries it around with him, and uses it constantly.

The efficacy of the remedy lies in its early application; therefore, it is more of a prophylactic than a curative remedy. It is not a remedy to be applied during the height of an attack. I do not believe any of the experiments made will show that it has relieved an attack of hay fever after it has been fully established. If used when the first signs or symptoms of hay fever manifest themselves, as tickling in the corner of the eye, in the nose, intense itching of the roof of the mouth, lacrimation, etc., by the patient insufflating a small amount of the powder in the nostril, or dropping one or two drops of the fluid under the lower eyelid, or dropping a few drops into the nostril, it is said to prevent the attack. But it is to be repeated as soon as there is any sign of return of the early symptoms.

Dr. Beck: I would like to ask Dr. Stein where this can be had?

Dr. Stein: I got the last quantity from Merck. I do not know whether Merck handles it or not. I have the rye pollen and powder; the other I obtained from Dunbar direct. His last letter to me indicated that he was going to make some arrangements with some manufacturer to handle the preparation, because he asked me to furnish him the addresses of some manufacturers.

Dr. Henry Gradle: According to the latest report, Dr. Dunbar promises it will be put on the market the coming year, but he does not state who will handle it.

Dr. Otto T. Freer: I have seen the report referred to by Dr. Gradle, it is in the Berliner Klinische Wochenschrift, and is written by Drs. A. Luebbert and C. Prausnitz. Dr. Dunbar's Antitoxin is being made by the firm of Schimmel & Co., in Miltitz, near Leipzig and will be marketed under the name of "Pollantin." The authors refer to the fact that the fluid antitoxin is liable to be contaminated by the patient and

hence to decompose as it contains only ¼ per cent of carbolic acid. For this reason a powdered antitoxin mixed with milk sugar is recommended in its stead as a snuff. When antitoxin is used prophylactically in the morning before the daily onset of the hay fever irritation and consequent running of the nose, they found the beneficial effect most certain and marked. When the nose discharges freely the antitoxin has but little effect as there is no absorption. When the serum was used as they suggested, a good result was obtained in most cases.

Dr. E. F. Ingals: About the first of last October I received quite a package of this antitoxin from Merck, and I think they will send me some more if I ask for it. I used it I think in four cases with the after-clap of hay fever. One of them thought it helped considerably, but the others said it did not seem to make much difference. I hope to try it thoroughly the coming season.

CHICAGO NEUROLOGICAL SOCIETY.

A regular meeting of the Chicago Neurological Society was held at the Sherman House, January 28, 1904, with the president, Dr. Sidney Kuh, in the chair.

A case of Paraplegia was presented by Dr. Charles H. Lodor. Male, 42 years of age. Up to a year ago he was ablebodied and a hard manual laborer. He has been a janitor and engaged in hard labor since 18 years years of age. Until a little over a year ago he had nothing the matter with him, so far as he recognized, save an accident some years ago, in which the bridge of his nose was broken. He has a good heredity; his father, 84 years of age, is still living; his mother died in child-birth. Two sisters are living, and one sister died of supposed spinal trouble. A year ago he began having cramps, and thought he had rheumatism, as his legs were getting stiff. With this stiffness he noticed a very strong inclination to rise on his toes, and if walking fast, would grow rigid. This became worse when he got cold. For the past 12 to 14 months this has been progressing until now he has very little motor force in the legs and is beginning to lose power in his arms. I tested him all over the skin surface, and there is no disorder of sensation. For one in his station, he is unusually acute; can tell warm water and cold, and the slightest touch anywhere on his body, and can localize it. He can pull his shirt over his head and not fall. With closed eyes, he can place his index finger on tip of his nose. There is no trouble with the eyes. The reflexes are so increased that a blow on the patella is liable to produce disaster. A week ago he got into the bath tub and was left too long, and became so rigid he could not be bent, but was carried like a bar to his bed. Tonight in bringing him up here he got so stiff he had to be carried. (The patient was unable to cross his legs, and on attempting to walk a few steps, raised on his toes and could go no farther).

While the hands show some loss of power, still his grip is good. He has ankle clonus. There is not a particle of tremor nor staggering. The eyes and all cranial nerves are normal. The peculiar thing about the case is the rapidity of the onslaught. There are no trophic symptoms, and there has never been any pain. There is no paraesthesia. He has had cramps that were painful and would draw the legs up, he says. He passes water all right, and the vita sexualis is still present. There is no exaggeration of the upper reflexes. He has had no gastric symptoms and has good appetite all the time.

There is no heredity and no specific history. The two features are the rapid onslaught and the spasticity. He can be stood on his toes very readily, and only relaxes when fatigue comes on. So far as I can now see, I am presenting a case of true spastic paraplegia, a paraplegia from involvement of the motor tracts alone. Of the five cases of supposed spastic paraplegia which I have seen long enough to follow them out personally over prolonged periods, two were certainly mistakes in diagnosis, and the others are still under question; and we have so few records of pure cases of spastic paraplegia that have come to a post mortem that all such cases must be held under judgment until proved, as many have been shown to be multiple sclerosis or mixed.

In the month I have had this man under observation, I am sure the symptoms have shown advancement. In fact, so rapid has been the progress that the history rather speaks against the lateral sclerosis theory, if there be such a thing. He has had no days of improvement.

Dr. Patrick asked whether the progress had been uniform, or if at times he grew rapidly worse.

Dr. Lodor replied that so far as he could tell, it had been progressive, but very rapid. It has been over fourteen months since the patient recognized the fact that he was losing power. He has grown steadily worse, and not by separate intervals.

Dr. Kuh asked whether it had been very nearly equal on both sides. Dr. Lodor replied that it had been worse on the right than the left side. Dr. Kuh asked if it had begun on the right, to which Dr. Lodor replied that he had been unable to elucidate that point.

Dr. Patrick: There is another possibility in the case. I certainly should not wish to make a positive diagnosis; but for nearly two years I have been rather particularly interested in myeline degeneration; not lateral sclerosis of a general type as occurs in paresis and without it, but the subacute or more rapid forms, such as occur in the course of pernicious anemia, etc., and which are now known to occur without anemia, or in the simple forms of the same. I do not know, but I think I have seen a good many—I mean eight or ten cases in the past year and a half; cases of compound degeneration; cases that run their course in one year to three years. I cannot say of my own cases that they run their course in three years, for I have not followed them up, except the fatal ones, which were not so long. But similar cases have been known to run as long as four years. The lesion in these cases is a compound lateral and posterior degeneration, more rapid than the extremely chronic cases like tabes and

multiple sclerosis, and not so rapid as acute myelitis and inflammatory lesions, but sufficiently rapid for post mortem to show disintegration of the nerve fibres in parts of the affected areas by the Marchi method. The cases vary exceedingly in symptomatology. Some seem to begin in the lateral columns and some in the posterior columns, so that in the beginning the case may look like tabes, and in other cases it may look like spastic paraplegia. Ultimately the symptoms show the involvment of the columns in a primary attack. One should not speak of primary and secondary in this relation except as regards time. I think this is a possibility in this case, though the absence of incoordination would militate against it.

Dr. Lodor said: No case had been recorded that did not show some sensory disturbance early, or concommitant with the motor and that he did not think that objectively sensory symptoms are discovered at first, but nearly always subjectively.

Dr. Patrick said the possibility ought to be mentioned, because the case is unusual, and we must not bind ourselves too closely to types. It is only two years that he had been acquainted with these cases as he should be, and he now recognizes cases that he saw before and which puzzled him, and he did not make a diagnosis because there was no pernicious anemia present. In two cases in which he made blood examination he had not the courage to go on because there was no pernicious anemia. Because the picture is not complete we should not be afraid to go on and make the diagnosis. He would not say that the above is true in this case.

Dr. Dewey asked whether there was an extension of the great toe on irritation of the plantar surface?

Dr. Lodor replied there was extension.

In summing up the case Dr. Lodor said, I have gone over the ground Dr. Patrick speaks of, and had in mind toxemia. There is no blood change. The blood count is high. His general health has been good all the time until lately, when he has been restricted in his exercises. I have never examined a case in his station in life where all the sensory side was so perfectly normal, and where localization was so perfect, and his response is not only not retarded, but is intelligent and instantaneous. He knows where and what is touched. Until I get further light I cannot but hold to my present diagnosis that it is one of the few rare cases of lateral sclerosis and no further involvement of the cord; and yet, as I said in the history of the case, the rapid onslaught and perhaps his age are both against the diagnosis.

Dr. Patrick exhibited a case of **Superior Tabes** and said that owing to the importunities of the Secretary, he was a little premature in bringing this patient. He would have liked to have gone over the case more carefully before presenting him; but he has been carefully examined. It is not uninteresting and sufficiently clear to indicate that it is a case of Superior Tabes.

His history is as follows: Man, age 38 years. Has been married 4 years. The marriage has been childless, although the wife miscarried once at two months. Seventeen years ago, while an employe of Edison & Co., was exposed much to wet and cold. Twenty years ago urethral discharge, though no sore. Habits good regarding alcohol and tobacco. In 1892 received a severe electric shock, was unconscious about two hours and for two months he was generally disabled. There was a fall of from 16 to 18 feet, which perhaps accounted for the unconsciousness, aside from the shock. In 1895 he seemed to fail generally in health. He lost in weight from 165 lbs. to 130 lbs. He recovered in weight to 180 in 1900. In 1900 vision began to fail and in three months this impairment had progressed to quantitative vision for both eyes. Within three months the eyes had grown so bad he could just count fingers. That was a year ago in July. Went out to Highland Park to do some work on telephone, having completed which, started home and became suddenly blind. He sat down on the sidewalk until someone came along to take him home.

Dr. Patrick said he thought the case should have more study before being presented, but would go ahead.

When he came to look over the statement Dr. Heck kindly prepared, several things seemed to suggest functional disease, and this sudden loss of vision may be construed as an intimation of the same sort of trouble. That was in 1902. It lasted from four to six weeks. The patient says "I got home and was taken down town, and the doctor said to go in a dark room. He gave me something and told me to keep where it was dark. He put drops in my eyes. This was kept up for about eight weeks. Vision gradually came back. At that time had severe neuralgia in the face."

He says he had extreme pain both sides of the entire face; so severe he could not sleep at night. He was told it was neuralgia from bad teeth, and had all taken out—22. The pain left gradually. The eye sight was all right with the glasses, until last July it began to fail. Last July he noticed a little place on the forehead where he felt the skin stiff and did not feel natural. When stuck with a pin he could not feel it. This gradually spread along the left side, around the eye, corner of mouth and down over side of chin, and is now completely anesthetic from the crown down around the chin. The advance of anesthesia and analgesia over the lips and chin has occupied six weeks. He has some little difficulty in swallowing, and occasionally chokes. He says "I just choke, and choke for a while, and then I am too weak to stand and sit down for a while." His description is suggestive of laryngeal crisis and is caused by irritation of the food, and he gasps, and then it passes off.

Another peculiar symptom which was learned of within a day or so is that he is extremely sensitive to a bath; no aversion, but an extreme sensitiveness of the skin. That has been since about last July too. Can tell the difference between hot and cold water on face, but it is more the body and legs that are so sensitive.

Could not stand putting feet into water, as it caused pain, but gradually put water on legs with hands.

Dr. Patrick said in passing that he had known several cases of tabes where there was a great hyperesthesia to cold water.

There is great sensitiveness to light. Dr. Patrick had seen once or twice that early in the failure of vision there seemed to be hypersensitiveness to light. He said that this may bear some relation to the fact that was brought out by Lehr (?) that there is apt to be a hyperesthetic area found if this anesthetic zone extends on abdomen or the abdominal reflexes are increased; and bordering on the anesthetic zone there is apt to be a hypersensitiveness to touch. Dr. Patrick remembered very clearly the case of a man who worked in a livery stable, and the most intense discomfort he had was when he had to wash buggies and got cold water on his legs and feet. That was really what drove him to the clinic, to get relief from this sensitiveness of legs and feet.

This case has analgesia bilateral in area of 5th nerve. Co-ordination is good; no ataxia. The patellar reflexes are present; the gait is normal. The supra-orbital is absent on both sides. The eye muscles are all right; pupils somewhat irregular. There is a typical Argyle-Robertson pupil. It is a question if he has a hippus. It seems sometimes he has. It is a question whether it is not connected more or less with an involuntary accommodation. In looking at a distance, he looks at one thing and another, and it may affect the pupil. It was thought at one examination he had an iridoplegic pupilary contraction. We satisfied ourselves that was also due to accommodation and not a question of light. The tongue is tremulous. Articulation is good; deglutition is good. This anesthesia, however, involves the tongue; pharynx not examined. There is analgesia in the oral cavity, but not anesthesia. Am inclined to think there is a shifting of the area of analgesia. He says the the inside of the mouth feels like wool or sponge. Food does not feel natural. Taste varies. Occasionally trouble in swallowing. Taste varies; nothing constant about it. The question might arise that if this man really had anesthesia of the buccal cavity, how did he control the bolus of food. There seems not to be complete anesthesia, or he would not know where in his mouth the bread and butter is, and could not chew it.

Discussion.

Dr. Gradle asked what was the present condition of sight?

Dr. Patrick replied that glasses made vision all right.

Dr. Lodor asked whether or not there was any change in the areas of tap sensation during examination?

Dr. Patrick replied that he thought not.

Dr. Lodor said he thought at first the answer was no, and the second time clearly and definitely yes.

Dr. Patrick said that he had not noticed that.

Dr. Kuh asked whether or not the area corresponded to the distribution of the fifth nerve?

Dr. Patrick answers that the borders correspond very closely to the fifth nerve.

Dr. Kuh asked whether or not the reflexes of the triceps and biceps were present?

Dr. Patrick answers that the knee jerks were quite brisk.

Dr. Donaldson asked if the diminished sensation in the region of the fifth nerve could be associated with the loss of the large number of teeth, bringing degeneration as a consequence?

Dr. Patrick said that he thought not but that he was interested in that just a little, as he had had three cases of facial paralysis lately associated with the drawing of teeth, and in two of these there was herpes in the distribution of one of the branches of the fifth nerve, and in at least one there was anesthesia where the herpes was; but he would not attribute the anesthesia in this case to that, especially as the anesthesia was noted a year after the drawing of the teeth.

Dr. Donaldson said that it requires about fifty days in animals for the cells to cause a disturbance of the ganglion.

Dr. Patrick replied that the theory did not appeal to him as thousands of people have their teeth pulled and put in plates and have no trouble with the fifth nerve that he had ever heard of. He said he did not know that he understood how the drawing of the teeth could cause an anesthesia and asked whether or not it would be by shrinking?

Dr. Donaldson answered that he was thinking of a branch of the nerve supplying the teeth; it would then ascend and envelop the ganglion and that a very decided degeneration would lead ultimately to a shrinkage and possibly a disturbance of some of the cells of the ganglion.

Dr. Patrick asked if that would not cause pain in the fifth nerve?

Dr. Donaldson replied that he did not know.

Dr. Patrick said there are several interesting phases of this case aside from the functional complication. In the first place, the almost bilateral character of the thing from the first. The spot on the forehead seems not to be on either side, but in the middle, and bilateral tabes is quite unusual.

Dr. Kuh asked if it were a typical Argyll-Robertson pupil?

Dr. Patrick answered that it was not. He said he thought that currently, among neurologists this is a term synonymous with reflex iridoplegia and that no particular attention is paid to the size of the pupil, but that it is his custom to enter in the records the Argyll-Robertson pupil when it is not the pin-point pupil at all. Not more than one in five have the pin-point pupil. He then asked whether or not ophthalmologists always mean a small pupil.

Dr. Gradle answered yes.

Dr. Patrick replied that is not the current use of the term among neurologists.

Dr. Mettler asked when his eyes were examined?

Dr. Patrick answered within two weeks. The first time they were examined was by a man Thompson, who has the reputation of running

an advertising plant on State street. He has been examined three times since then, and there is no change. The pupil has acted the same.

Dr. Mettler said that you do get, in rare instances, in functional troubles, pupils of this character and that he had twice seen a hysterical amblyopia with pupils that did not react alike, and Dr. Gradle thought that all of the data in the case had not been obtained, but Dr. Mettler felt sure that he did find a rigid pupil to light in hysteria. This man has neither large nor small pupils. It is probably due to spasm. Oppenheim gives that explanation in functional trouble due to spasm of the dilated pupil.

Dr. Frank said the case he had last meeting had dilated pupils because of the iridoplegia.

Dr. Patrick in closing the discussion said that in going over in his mind the various causes of the Argyll-Robertson pupil, tabes in this case seemed a better explanation than any other. There is to be considered spasm, alcoholism, and multiple sclerosis, and the result of a previous ophthalmoplegia, or a lesion of the third nerve, but there is no evidence of any of these causes in this case.

A regular meeting of the Chicago Neurological Society was held March 24, 1904, with Dr. Sidney Kuh in the chair.

Dr. Alfred C. Croftan presented a case of **Unilateral Serratus Palsy,** with possible spinal myosis. The patient had a history of exposure to cold while working at the Stock Yards, where, in the steam room, the temperature was alternating hot and cold. In October he came down with an attack of what he termed "general rheumatism," lasting for three days. He recovered and went to work, but at the end of five hours labor was forced to quit on account of inability to raise his arm. His occupation necessitated his holding hides and giving them a vigorous shake, raising them high up to do this. The doctor said that when the man first came to him his scapula stood off considerably. Careful examination elicited nothing further save a considerable increase in the reflexes on that side, and an inequality of the pupils, which Dr. Croftan considered to be a spinal myosis. Accommodation to light, etc., had not been determined. The patient had improved remarkably under somewhat large doses of K. I. The question for determination was as to whether the lesion was local and peripheral, or spinal. Dr. Croftan was inclined to think the latter. There were no sensory disturbances and absolutely no specific evidence. The onset was very sudden. Dr. Croftan said he had told the class it was a spinal lesion between the 5th cervical and 1st dorsal. There was no temperature disturbance.

In the discussion following, Dr. Patrick showed pictures and described the case of a young man of 20, who, while practicing the swing on the horizontal bar, in preparation for some turner's exhibition, had suddenly developed paralysis of the serratus—he did not know just how rapidly it had came on. It was probably the drawing up of the shoulders and the pressing of the clavicle against the nerve that caused the trouble, but Dr. Patrick did not think this a very good explanation, because the posterior thoracic nerve is supposed to pass beneath the brachial plexus, and if one is to explain this symptom by pressure on the clavicle, it is reasonable to suppose the plexus would be involved to even greater extent. There is a question whether it might not have been caused by a pinching of the nerves, as swinging by the arms would be entirely a pulling and not a pushing. The boy was taken off his exercises and recovered. A good many cases had been reported from carrying weights on the shoulders, and from occupations involving violent motions of the arms; also in painting ceilings and reaching over the head to accomplish this; but this would give a different muscular action, that of pushing up, thus straining the serratus.

Dr. Lodor suggested that the muscular effort is the same, whether pushing or pulling, that is, rotation or prevention of rotation of the scapula. Many piano movers are affected, where one man acts as a pivot and the piano is turned on his shoulder.

Dr. Kuh doubted there having been rheumatism, or that there had been a sudden onslaught.

Dr. Lodor said that all the symptoms pointed toward a lesion within the cord.

Dr. Harold N. Moyer called attention to the fact that it was much like a case exhibited by him two months before of unilateral amyotrophic lateral sclerosis. This would account for all the lesions. The fact that the paresis has involved the serratus more than the other muscles was significant. There were the fibrillary contractions, the increased myotatic irritability, and to his mind, a complete picture of lateral sclerosis. The possible factor of syphilis would account for any kind of a picture, and would show why improvement was made under antispecific treatment.

Dr. Charles Louis Mix, presented a case of **Syphilitic Spastic Spinal Paraplegia** and said that in 1875 Erb described what he supposed to be a new morbid entity under the name of Spinal Spastic Paraplegia, supposing the underlying pathological condition to be disease of the lateral tracts. Three symptoms were said to be present, paraplegia, increased reflexes with or without ankle and patellar clonus, and increased muscular tension or spasticity. With the discovery of Bobinski's phenomenon, the toe sign was added as a fourth necessary symptom. From the negative point of view, atrophy, sphincteric disturbances, ataxia, tremor, sensory signs, involvement of the cranial nerves, are all absent. Clearcut as the symptomatology is, Erb's spinal spastic paralysis has had a dubious career, and now after almost thirty years, but eleven post mortem cases are on record, these having been recently collated and detailed at greater or less length in the **Deutsches Archiv. fur Nervenheilkunde** of last year. Von Leyden and Goldscheider of Berlin reject Erb's disease; Oppenheim accepts it as a morbid entity, but insists that many cases apparently pure, subsequently unmask themselves, becoming cases of multiple sclerosis, chronic hydro-

cephalus, syringomyelia, tumor at the decussation of the pyramids, or symmetrical cerebral focal disease.

Erb, having a well-defined concept of what spastic spinal paraplegia should be clinically, noted that among his patients suffering from spinal disease secondary to syphilis, there were many presenting a group of symptoms closely resembling those of spastic paraplegia, yet also showing slight sensory symptoms. Up to the year 1892, when Erb published his first paper concerning syphilitic spastic spinal paralysis, in the Neurologisches Centralblatt, (p. 161), it had been his custom to classify these cases under the broad head of myelitis transversa dorsalis, notwithstanding the fact that they are symptomatically very little like ordinary cases of transverse myelitis.

Clinically Erb noted that these cases presented the typical picture of his so-called spastic spinal paralysis, in gait, posture, locomotion and in the greatly exaggerated reflexes; but that the increased muscular tension was proportionately less marked than in true spinal spastic paraplegia. Moreover, as a rule other symptoms were present. For example, there were moderate disturbance of the bladder, and slight sensory impairment of a vague sort, impossible to map out accurately on the patient's body. As in spastic spinal paraplegia, these specific cases showed no muscular atrophy. Unlike ordinary cases of specific meningo-myelitis, there were no root symptoms, there being little or no pain. Like ordinary cases of spastic spinal paraplegia, the cranial nerves, and the cervical and dorsal spinal nerves escaped.

The development of these cases is gradual, extending over months, or even years, being ushered in by symptoms of paresthesia and slight transitory pains. There follows in time the subjective feeling of increasing fatigue on exertion, associated with demonstrable weakness of the lower extremities. Spasticity develops *pari passu* with paresis. Subsequently vesical symptoms appear, and the symptomatology is completed. Though the development is very gradual, it may be rapid; as a rule, however, the evolution is exceedingly deliberate.

Certain points in the symptomatology require special emphasis. The spastic gait is exquisite, slow, dragging, very stiff, the steps taken with great effort. On the other hand, the paralysis is very slight—merely a paresis. Compared with the development of other symptoms, the muscle-tonus is only slightly increased, so that contractures are rare, occurring in scarcely ten per cent of cases. The reflexes are violently increased, patellar clonus being common, and ankle-clonus the rule. The Babinski toe sign is present on both sides, indicating double involvement of the pyramidal tracts. Sensory symptoms are objectively very slight, consisting of disturbances chiefly of the tactile sense, though the thermic sense, the muscle and joint sense and the pain sense may all be slightly impaired. Subjectively, sensory disturbances are more numerous, consisting mainly of slight pain occasionally and of various paresthesiae very frequently. Bladder symptoms are constant, consisting chiefly of inability to start the stream, or to prevent the passing of a few drops of water after micturition seems to the patient to be completed. Rectal incontinence may rarely be present; and if present, it may alternate with vesical incontinence or retention. The sexual function, as in tabes dorsalis, is in part lost; but there is no antecedent heightening of desire.

From the negative point of view it must be insisted that the nerves of the head, neck and upper extremity are entirely free from disease. The pupils are perfectly normal, the eye muscles absolutely intact, the speech unimpaired. There is no loss of memory or of intelligence. Tendency to spontaneous improvement is frequently noticed, especially after energetic specific treatment. Improvement may set in and last even for decades. In other cases the disease progresses slowly to a certain point, and then remains stationary, without further development.

In making a differential diagnosis, tabes dorsalis is at once eliminated by reason of the perfect pupillary reactions and the exaggerated patellar reflexes. Multiple sclerosis is not so easily differentiated, cases of apparent syphilitic spastic spinal paralysis actually "unmasking" themselves, showing true multiple sclerosis. Compression myelitis gives a marked paraplegia, with pronounced contractures, whereas syphilitic spastic spinal paralysis shows slight paraplegia and rarely any contractures. Syringomyelia is revealed by the dissociation of sensory symptoms and by the trophic disturbances. More difficult is the differentiation of the syphilitic cord lesions, notably syphilitic meningomyelitis, gummatous multiple root-neuritis, and forms of syphilitic polio-myelitis.

As to the time of the development of the disease, with reference to the date of syphilitic infection, Erb noted that in his original 22 cases, 13 showed symptoms of the disease in the first three years, 18 in the first six years, and only 4 after six years. As to its frequency, it seems to occur one-tenth as often as tabes dorsalis.

Kuh, in 1893, reported sixty-two cases from Erb's clinic, and private practice, adding seven other cases gleaned from the literature. Of 51 of these, 21 showed the disease within two years of the time of infection, 36 within five years of the time, and 41 within ten years. As to the age of the patient at the time the disease developed, 6 of a total of 56 were under 25; 12 were between 26 and 30; 11 were between 31 and 35, and 15 were between 36 and 40. Thus 44 cases were under 40, only 12 being above that age.

Well-defined as the disease seems to be clinically, there have been a surprisingly small number of confirmatory post mortem observations, Erb having been able to find but nine, which he has reported in detail in his last paper on the subject, in the **Deutsches Archiv. fur Nervenheilkunde,** in 1903. It is hardly necessary to enumerate these cases, it being sufficient to state that of the nine, only five cases conformed to Erb's idea of what the pathological changes should be. Curiously enough, all of the cases showed degenerative changes in the direct cerebellar tract and in the column of Goll or of

Burdach, or of both. Erb therefore expresses himself as willing to extend his original concept of what the pathological changes should be, and to add these changes to those affecting the pyramidal tracts.

The case presented is a pure example of Erb's type of syphilitic spastic spinal paralysis. The patient is a Welchman, 43 years of age. For ten years he has been afflicted with his present malady, which began five years after a specific chancre. The onset of his disease was with sensory disturbances, chiefly algesic and paresthetic. In two or three years a progressive weakness and stiffness of the legs followed, and great exaggeration of the patellar reflexes and the presence of double ankle clonus. At the present time he shows areas of slight disturbance of tactile sensation, chiefly in the right leg, though to some extent in the left; and as in Erb's case, it is impossible accurately to map out these areas. The sensory impairment includes tactile, algesic and thermal sensations. Indeed, there is more involvement of the sense of temperature than of the sense of touch. The reflexes are grossly exaggerated, especially noticeable in the patellar and tendo-Achillis reflexes. Ankle clonus is present on both sides, and patellar clonus, though absent now, was recently to be demonstrated. There is also a double Babinski reflex, so easily elicited that pinching the calf is sufficient to call it forth in either foot. The spasticity is evidenced best in his gait, which is exquisitely spastic. That there is motor weakness is evident when one tests his quadriceps extensor muscles, the soleus and gastrocnemius groups and the flexors and extensors of the foot. It will be noted that a large amount of strength remains, there being merely a reduction and by no means a paralysis of motion.

The bladder has long given the patient trouble, retention and inability to start the stream being the chief signs. There has been rectal incontinence during casual periods of diarrhoea. From the negative point of view, the entire absence of muscular atrophy, fibrillary twitching, tremor, disturbed pupillary reflexes, cranial nerve impairment, involvement of the nerves of the neck, arm or trunk, are all noticeable. The case is therefore a pure example of Erb's syphilitic spastic spinal paraplegia.

Dr. Harold N. Moyer exhibited a case of **Chronic Hereditary Trophedema,** saying there was no doubt about the rarity of the disease. Meige in 1890 had exhibited a similar case before the French Neurological Society, and in 1892 DeBove published a case in La Presse Medicale, under the title of Segmentary Edema. Dr. Moyer had seen one other case of the disease, five years ago, and this was confined to the upper extremity; he regretted that he had not put this case on record.

Dr. Moyer's present case is that of a young lady of 32 years of age of good history; never had any sickness since the children's diseases. The enlargement began about twelve years ago, just above the shoe top. Never had been any pain or discomfort. It occurred after a sprain, but she did not know that the sprain caused it. The same thing began in her mother about eight years ago, and is like the present case except that it does not extend above the knee. The patient has been active all the time, attending to her duties as school teacher, and able to walk long distances. There is a difference in the calf measurements of five inches. The skin seems perfectly normal. It is probably not an edema, but a trophic disturbance. There is no pitting of the skin and no fluid. There is a uniform enlargement of the whole lower extremity from the crest of the ilium to the foot. There seems to be an increase of body of the entire muscular system. It is not, in a certain sense, a disease. All that is complained of is muscular hindrance. The leg is big and hence uncomfortable and in her way. There is no central disturbance. The thyroid is present, but it is impossible to tell its condition, of course. Some tablets she took (probably thyroid extract) sent the heart up to 122-4 and these were not used again.

Dr. Crofton asked if it were possibly a phlebitis, but it was considered too slow and too diffuse for this. There is no disturbance of the circulation; no enlargement of the veins. It is not known if the bone is enlarged, but an X-Ray will be secured later. No pathology is known because there have been no examinations. The cases are very rare. Alteratives in small doses have been used with some benefit: active massage and some bandages or elastic stockings seemed to give comfort and support which was grateful to the patient. It was hoped they would improve circulation and prevent stasis.

Dr. Kuh suggested that iodothyren might avoid some of the unpleasant results of the thyroid extract and not upset the system.

Dr. Crofton suggested that the disease would not be unilateral if it were due to the thyroid.

Dr. Lodor thought iodide cataphoresis ought to be of service. Using the positive pole over the extremity and the negative pole as the indifferent one and employing iodid of potassium.

Iodoneucleoid has been used and the patient and nurse think she has improved somewhat under active massage.

The Illinois Medical Journal.

EDITORIAL OFFICE, 522 CAPITOL AVENUE, SPRINGFIELD.

Copy for advertisements must reach the editor's office by the 20th of the month in order to secure insertion.

PUBLISHER'S NOTES.

The Journal is not responsible for any medical or therapeutical views expressed in this department.

Dr. A. H. Ohmann-Dumesnil, under date of June 1, 1904, writes as follows:

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